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# AIRPORT FIRE TENDERS



Report

# 189

Joint Committee of  
Public Accounts

THE PARLIAMENT OF THE COMMONWEALTH OF AUSTRALIA

JOINT COMMITTEE OF PUBLIC ACCOUNTS

189TH REPORT

AIRPORT FIRE TENDERS

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JOINT COMMITTEE OF PUBLIC ACCOUNTS

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Section 8.(1) of the Public Accounts Committee Act 1951 reads as follows:

8.(1) Subject to sub-section (2), the duties of the Committee are:

- (a) to examine the accounts of the receipts and expenditure of the Commonwealth including the financial statements transmitted to the Auditor-General under sub-section (4) of section 50 of the Audit Act 1901;
- (aa) to examine the financial affairs of authorities of the Commonwealth to which this Act applies and of intergovernmental bodies to which this Act applies;
- (ab) to examine all reports of the Auditor-General (including reports of the results of efficiency audits) copies of which have been laid before the Houses of the Parliament;
- (b) to report to both Houses of the Parliament, with such comment as it thinks fit, any items or matters in those accounts, statements and reports, or any circumstances connected with them, to which the Committee is of the opinion that the attention of the Parliament should be directed;
- (c) to report to both Houses of the Parliament any alteration which the Committee thinks desirable in the form of the public accounts or in the method of keeping them, or in the mode of receipt, control, issue or payment of public moneys; and
- (d) to inquire into any question in connexion with the public accounts which is referred to it by either House of the Parliament, and to report to that House upon that question,

and include such other duties as are assigned to the Committee by Joint Standing Orders approved by both Houses of the Parliament.

## PREFACE

This Report on the purchase of overseas-manufactured fire tenders by the Department of Transport for use at Australian airports arose out of the unfavourable comments of the Auditor-General in his Report for the year ended 30 June 1979. His report was fully substantiated in the Inquiry.

Attention focused on the procedures and practices used within the Department to draw up specifications, call tenders and select a contractor for the supply of highly specialised rescue and fire fighting equipment. The conclusions reached by the Committee do not reflect favourably on the standard of management of the Department of Transport and Departmental action for review was welcomed by the Committee.

The history of the purchase of Ultra Large Fire Tenders now documented in this Report provides some valuable considerations for future purchasing by government agencies. It is the Committee's wish that careful attention be given to the Inquiry's conclusion for improved management and accountability.

For and on behalf of the Committee,

David M. Connolly, M.P.  
Chairman

M.J. Talberg  
Secretary  
3 August 1981

AIRPORT FIRE TENDERS - DEPARTMENT OF TRANSPORT

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## CHAPTER 1

### INTRODUCTION AND SUMMARY OF CONCLUSIONS

1.1 Purchasing procedures and practices of government departments have been a constant concern of the Auditor-General and the Public Accounts Committee. The increasing cost per item of major equipment, the growing volume of orders and the compounding technological complexity of equipment have manifold implications for the Australian Public Service in its domestic and overseas purchases.

1.2 The five year purchasing program for Ultra Large Fire Tenders (ULFT) approved for the Department of Transport in 1977, appears to be a case in point. A decision having been made to upgrade fire fighting facilities at Australian airports to meet International Civil Aviation Organisation guidelines, the Department embarked on a program of action which encountered considerable difficulties and incurred significant additional costs to the original contract prices.

### SUMMARY OF CONCLUSIONS

1.3 The Committee found that:

1. The initial submission from the Department of Transport in response to the matters raised in the Auditor-General's 1978-79 Report was lacking detail and inadequate for its purposes. (Paragraph 2.24)
2. In the more detailed background statement provided for the public inquiry into the purchase of twenty-five Walter fire trucks, the Department of Transport appeared to have withheld relevant information on an earlier contract with Deveson Jahn (Australasia) Pty Ltd which was an independent contractor dealing with Henry R. Jahn Inc of New York who was then the Export Distributor for Walter Motor Truck Company. Nor did the background statement provide information on the cancelled contract with Chubb (UK) for twelve Rapid Intervention Vehicles which undoubtedly added to the urgency of the Walter contract. (Paragraph 3.13)
3. In the same statement it did not fully inform the Committee on matters relating to the Walter contracts which had been the subject of seventeen questions on notice in Parliament as well as about twenty critical articles in the press since February 1979. Criticism related to the specification, identity of unsuccessful tenders, defects, costs of modification, repair and maintenance, out of service period for each vehicle,

location and origin of spare parts and identification of officers involved with the drawing up of the specification and evaluation of tenders received.  
(Paragraph 2.23)

4. Purchasing procedures in the Department of Transport needed to be reviewed, an action precipitated in 1981 by this Committee's Inquiry and the Review of Commonwealth Functions.  
(Paragraphs 2.21, 6.6)

5. On the grounds that  
(a) the original contract was awarded before the Department of Administrative Services issued its Circular 77/4 on "Specifications for inspection and quality assurance",

(b) the specification was not developmental or for a prototype,

the Department of Transport said it did not feel bound to undertake a two-phase contract, separating the design and development of a prototype from the manufacture, supply and delivery of production quantities. In the light of evidence heard it appeared to the Committee that it should have.  
(Paragraph 3.29)

6. The Department of Transport chose to develop a specification for Ultra Large Fire Tenders in the full knowledge that it exceeded both existing standards and recommended international standards for fire tenders and embodied an advancement in the design of such vehicles. It repeatedly denied that it had engaged in the development of a prototype, a position the Committee found contradictory.  
(Paragraphs 3.25, 3.28)

7. In its choice of the Walter single engined vehicle with a power divider, the Department of Transport appeared to have bought a vehicle involving a technology not yet fully proven by that manufacturer. The power divider unit on the 6,800 litre tender proved to be the major fault among sixteen fault types which required some upgrading of vehicle design on all vehicles.  
(Paragraphs 3.31, 5.17)

8. In the evaluation of twenty tenders received from eleven manufacturers by the Department of Transport, government preference arrangements for Australian purchases appeared not to feature highly. The Department subsequently had the Walter Motor Truck Company released from any requirement for offset because it required urgent delivery of the vehicles.  
(Paragraph 4.10)

9. The Department of Transport in assessing the total contract price for the Walter 6,800 litre tender, did not include travel and associated costs of \$9560 for the two officers who tested the first vehicle in the USA in January - March 1978. Nor did it appear to consider the cost incurred by delays in commissioning, modifications and repairs of vehicles as a matter for concern. The Committee did.  
(Paragraphs 4.20, 5.24)

10. Urgent delivery of the ULFTs appeared to be a major factor in the selection of the successful tender. It was the view of the Committee that this situation reflected deficiencies in the management of the Department.  
(Paragraph 4.37)

11. The undertaking in the Walter contract awarded on 29 June 1977 to establish a qualified and competent Australian agent employing factory trained personnel and stocking adequate spare parts before the first vehicle arrived in Australia, was not met. The Committee did not accept the Department's argument that this condition of the contract was subsequently met in the contract for the 9,100 litre ULFT let on 30 November 1978.  
(Paragraph 4.44)

12. The cost of essential repairs, maintenance and modifications required to make the new vehicles fully operational was reported as being almost \$200,000 up to November 1979, and a total of \$246,842 for labour and materials up to 30 January 1980. Maintenance costs aside, the Committee considered this to be an extraordinary additional cost to the original contract.  
(Paragraph 5.22)

13. The further cost of modifications and repairs carried by the Walter Motor Truck Company under warranty is not known. Its President failed to acknowledge or return the minutes of evidence sent to him, or to submit additional information he undertook to provide at the public hearings on 18 and 19 March 1979.  
(Paragraph 5.23)

14. The Department did not carry out what the Committee considers to be usual commercial credit checks on the financial viability of the overseas contractor whose company failed some three years after the first contract was let and before the second contract was completed.  
(Paragraph 6.13)



15. The Department failed to consult the Trade Commissioner Service in New York, and appeared to have made inadequate use of its Transport Counsellor in Washington, D.C.

(Paragraph 6.17)

16. Production of the vehicles in the USA was not monitored by Australian officials based in either New York or Washington. Quality control during manufacture was subsequently found to be inadequate and was a major factor contributing to the repairs and modifications of the vehicles before commissioning.

(Paragraph 6.20)

17. Department of Transport consultation with Australian tenderers for ultra large fire tender contracts valued at \$44.2m appeared to have been unsatisfactory. The Committee believes the Department needs to improve its professional and public relations with Australian industry and its cooperation with the Fire Fighters' Union on safety and other operational matters.

(Paragraph 6.28)

18. The Committee believes that the evidence it heard and extracted from written submissions and correspondence brought into question the personal and professional integrity of some Departmental officers involved in the drawing up of specifications and the selection of the successful tenderer. While Committee was unable to substantiate these, it was generally not favourably impressed with the standard of management associated with the Department's efforts to purchase ultra large fire tenders since 1972.

(Paragraphs 4.14, 3.15, 3.16)

19. Modifications and repairs having been completed under warranty, the twenty-five Walter ULFTs are proving to be very successful in operation. Parts and support services are now available through an Australian agent, Abbey Engineering Pty Ltd, from the Walter Motor Trust Company of Canada.

(Paragraph 5.25)

## CHAPTER 2

### BACKGROUND

#### Previous PAC reports on unsatisfactory purchasing procedures

2.1 The Joint Committee of Public Accounts in its 137th Report enunciated the principle that "in contracts with a developmental content that require production of a prototype unit, the prototype should be subjected to exhaustive testing to prove that the unit is fully capable of performing the tasks for which the units are being procured before authority is given for the rest of the production to proceed."

2.2 In its 157th\*\* Report it had concluded that the Department of Defence, in its purchase of 61 industrial wheeled tractors in 1969, had failed to ensure that essential consultation between the Army and RAAF on specifications relating to their air portability had taken place. Nor did the Department of Defence in entering a contract which required the production of a prototype unit, ensure that the prototype was subjected to exhaustive testing which confirmed that the unit was fully capable of performing the tasks specified.

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\* Australia, Parliament, Joint Committee of Public Accounts, the Report of the Auditor-General Financial Year 1970-71, Parliamentary Paper 77, Canberra 1972 p. 23:

"79. The Audit Observer... quoted from an Army document which sought to establish general guidelines to be followed when arranging future contracts:

'A number of lessons have been learned from the history of this (Purchase of Prime Movers and Semi-Trailers) particular contract. Firstly, no future contract should be let for both prototype and production units. Any such contract should be limited to the prototype vehicles in the first instance.

Secondly, a specific test programme should be prepared prior to the delivery of prototype items, and the timing and general progress of such tests should be carefully managed and reported on at specific intervals.

Thirdly, where alternative versions of particular equipments are available, much more complete investigations should be made into the pros and cons of the respective alternatives before any decision is made, which is not based on direct first hand experience of the operation of the equipment.'

\*\* Australia, Parliament, Joint Committee of Public Accounts, the Report of the Auditor-General Financial Year 1973-74, Parliamentary Paper 97, Canberra 1976.

2.3 In the light of its examination of the purchase of industrial wheeled tractors the Committee again declared the need to ensure that specifications state quite clearly the technical and quality requirements of the units being manufactured under each contract.

2.4 The attention of all Purchasing Officers in Commonwealth Departments and Authorities had been drawn to this requirement in the Department of Administrative Services circular 77/4 of November 1977 (see Appendix 4) which gave details of the Committee's criticism of purchasing procedures.

#### Ultra Large Fire Tenders (ULFT) - Auditor-General's Report 1978-79

2.5 In his Report for the year ended 30 June 1979, (see Appendix 5) the Auditor-General disclosed serious and costly problems associated with the Department of Transport order for and purchase of sixteen Ultra Large Fire Tenders from a firm in the United States of America.

2.6 Specifically, audit reviews during 1978-79 in the Queensland office of the Department of Transport revealed that -

- twenty-seven defects attributable to faulty material, workmanship or design had been reported in the Ultra Large Fire Tenders
- complete plans and drawings of the fire tenders were not delivered with the units
- technical manuals for the units were received ten months after Central Office had advised they would be distributed "as soon as received".
- modifications, correction of faults and limited maintenance on three tenders incurred costs of \$47,244 and involved 4,854 manhours, up to 30 June 1979.

2.7 Audit examination of departmental records in Victoria confirmed there were operational problems with the nine vehicles commissioned in the various regions in Victoria. Between October 1978 and January 1979 the nine units had been out of service for a total of 447 days. Another fire tender delivered to Canberra had not been commissioned eight and a half months after delivery.

#### Department of Transport comment on the Auditor-General's Report

2.8 Asked to comment on the Auditor-General's Report, the Department of Transport submitted a statement (see Appendix 1) which included some background information, acknowledged the substantial accuracy of the Auditor-General's comments and attributed some of the mechanical problems experienced with the fire tenders in service to unsatisfactory quality control in manufacture. It suspected that inferior quality control may have been the major contributing factor.

2.9 The Department stated that under the terms of the contract, the manufacturer had provided replacement parts and back-up service, and re-designed, manufactured and supplied certain replacement components for the units. Operating problems in Australia were investigated on site by senior management and specialists of the Walter Motor Truck Company, Voorheesville, New York.

2.10 The Department of Transport reported that it had been assured by the manufacturer that quality control in manufacture would be improved. It had sought specific advice as to how the Company proposed to achieve the required improvements.

2.11 The Department declared its satisfaction with the basic design of the equipment, regretted the initial operational problems as "unfortunate" and reaffirmed its original choice of the fire tender as the only vehicle capable of fully meeting the specifications, the most suitable for Australian conditions and the lowest priced technically accepted machine.

2.12 The Department confirmed that the purchase of a further six ULFT of 6,800 litre capacity manufactured to the same specification by the Walter Motor Truck Company, had been approved in March 1979.

#### Walter Motor Truck Company

2.13 The President of Walter Motor Truck Company, Jerome R. McDougal responded to an invitation to comment on the Department of Transport submission on the Auditor-General's Report. He provided a statement, (see Appendix 6) and appeared in person at the hearings on 18 and 19 March 1980 at his own expense.

2.14 McDougal took exception to the reported "defects" in the machines attributable to faulty material, workmanship or design, and described the initial operational problems as being part of the "de-bugging" process. He had concluded after the Company thoroughly investigated the problems referred to and the subsequent breakdowns, that the units had been subjected to "rigors and stress" not anticipated, thus exposing "weak links" unknown to exist.

2.15 It was the view of the Walter Motor Truck Company that "the standard of the rigors and high stress level" to which the Department of Transport Fire Service subjected the machines in training and use, was not reflected in the specifications The Department of Transport had established a

standard of training to a level not matched anywhere in the world.\*

2.16 Emphatically rejecting the notion that inferior quality control was the major contributing factor to the operating problems experienced with ULFTs in Australia, the Walter Motor Truck Company inferred in its statement that it was not aware of the rigorous usage to which the machines would be subjected. In so doing it threw into question the adequacy of the specifications drawn up by the Department of Transport and the evaluation of the tenders received against the specifications and against expected performance.

#### PAC Public Inquiry

2.17 Having confirmed that operational problems with the ten Walter ULFTs had incurred considerable expense to the Department of Transport in time lost and labour costs associated with repairs, modifications and replacement of parts, the Committee was concerned by a number of aspects of the purchasing procedures for the original contract and the subsequent purchase of six additional 6,800 litre machines and a contract for the supply of nine 9,100 litre machines. This concern was not allayed by the submission from the Department of Transport.

2.18 Hearings involving Department of Transport witnesses and representatives of manufacturers of ultra-large fire tenders in Australia and the U.S.A. (see Appendix 17) were held on:

- (i) 18 March 1980
- (ii) 19 March 1980
- (iii) 2 April 1981 (in camera)
- (iv) 28 April 1981

2.20 A demonstration of the operation of an Ultra Large Fire Tender at Canberra Airport was held for the Committee on 20 March 1980.

2.21 Matters identified by the Committee to be pursued in the Inquiry involved a review of the normal purchasing procedures and practices of the Department of Transport, and the particular procedures followed in the three contracts for twenty-five Ultra Large Fire Tenders with the Walter Motor Truck Company of Voorheesville, New York, U.S.A.

2.22 The course of the Inquiry was partly dictated by the need for additional background information. The initial submission provided by the Department of Transport did not

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\* Australia, Parliament, Joint Committee of Public Accounts, Report of The Auditor-General Financial Year 1978-79, Minutes of Evidence, p. 287

reassure the Committee about the procedures followed in relation to drawing up of specifications, selection of the successful tender, terms of the contract, and the operational success of the vehicles.

2.23 The direction of the Inquiry was also influenced by public discussion in the media of aspects of the contract and the known operational difficulties of the vehicle. Persistent questions on notice in the House of Representatives directed to the Minister for Transport by the opposition spokesman on transport from 1 February 1979 were also significant. (See Appendix 3)

#### Conclusions

2.24 The Committee found that the Department's submission and subsequent statement did not adequately answer the issues publicly raised or put them into context. A large amount of specific information was subsequently called for by the Committee in the course of its Inquiry.

2.25 The Committee wishes to draw to the attention of all Commonwealth Authorities and their Purchasing Officers the requirement that in contracts with a developmental content that require the production of a prototype unit, the prototype should be subjected to exhaustive testing to prove it is fully capable of performing the tasks for which the units are being procured before authority is given for the rest of the production to proceed. This requirement was promulgated in Commonwealth Purchasing Circular 77/4 (See Appendix 4).

### CHAPTER 3

#### THE NEED FOR ULTRA LARGE FIRE TENDERS

##### Market Survey

3.1 Contracts for these specialised vehicles were arranged with the Walter Motor Truck Company of Voorheesville, New York. The Department provided information on the forward program approved in 1977 for the planned purchase of twenty-five ultra large fire tenders and twenty rapid intervention vehicles for its fire fighting facilities at twenty-nine Australian airports.

3.2 When completed, the purchasing program would have Australia's airport rescue and fire fighting service "compare more than favourably with similar services in the world's leading aviation nations", according to the Minister for Transport in his News Release of 29 November 1978.\* Evidence before the Committee suggested that this claim was premature.

3.3 In determining its own needs, the Department had reviewed aircraft rescue and fire fighting systems and facilities throughout the world. A two month study tour of the USA, Canada, UK, France, Germany, Italy, Singapore and Japan had been undertaken by two officers in 1966.\*\*

3.4 Through Australia's membership of the International Civil Aviation Organisation (ICAO) the Department of Transport is kept aware of developments. It has adopted ICAO guidelines and requirements in specifications for rescue and fire fighting vehicles.

3.5 The ICAO commenced its review of guidelines in 1967. In 1971, Australia's representative, Mr William Harris, then Superintendent of Fire Services, participated in the second ICAO Rescue and Fire Fighting Panel review of world wide aircraft rescue and fire fighting experience.\*\*\*

3.6 Revised ICAO guidelines were subsequently issued with specific reference to (see Appendix 2 page 2)

- . vehicle acceleration
- . tyre pressure
- . cross country performance
- . desirable pump-role facility
- . fire fighting foam discharge rates

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\* Department of Transport, News Release 78/1182, 29 November 1978

\*\* Minutes of Evidence, p. 192

\*\*\* Minutes of Evidence pp. 192, 200, 308

3.7 These were reproduced in the Department of Transport specification WSFE 7500 calling tenders for "Fire Appliance - Ultra Large 6,800 litres water capacity minimum", dated September 1975.

#### Purchase program - pre-1977

3.8 It was during the taking of evidence that the Committee became aware of earlier unsuccessful attempts by the Department to replace and upgrade its equipment with the purchase of ultra large fire tenders. To put the purchase program into perspective, it asked for details of purchases since 1965 (See Appendix 6). Cancelled contracts were not referred to by the Department.

3.9 Tender schedule C2/72/11 of 14 April 1972, reissued on 3 November 1972, resulted in an order being placed in April 1974 with a Sydney-based firm, Deveson Jahn (Australasia) Pty Ltd. which was an independent contractor dealing with Henry R. Jahn Inc. of New York USA, then the export distributor for the Walter Motor Truck Company of Voorheesville, New York. The Committee understands that it was Henry R. Jahn Inc to which the Walter Company referred when it said in its tender: "Quite recently our long-standing agent/representative in Australia discontinued handling of our account".\*

3.10 The order was subsequently cancelled "because of contractual difficulties in acceptance of price variation clauses" which the Committee understands may have related to the financial difficulties even then being experienced by the Walter Motor Truck Company. It was not made clear to the Committee why satisfactory alternative terms were not negotiated with Deveson Jahn (Australasia) Pty Ltd.\*\*

3.11 A new tender schedule C2/75/191 was advertised in November 1975 shortly after the cancellation of the contract with Deveson Jahn (Australasia) Pty Ltd on 20 November 1975. The Committee was advised that the specification was a modification of that for the cancelled contract, updating it to include ICAO guidelines. (See Appendix 7)

3.12 On 29 June 1977 some 17 months after the closing of tenders of 27 January 1976, a contract was offered to the Walter Motor Truck Company of New York, USA. It marked the commencement of the purchase of twenty-five ultra large fire tenders from Walter in three contracts:

Quantity	Vehicle	Contract	Value
10	ULFT Mark 3	29 June 1977	\$A1,366,860
9	ULFT Mark 4	30 November 1978	\$A1,879,360
6	ULFT Mark 3	28 March 1979	\$A989,868
Total 25 vehicles			\$A4,236,088

3.13 It would have greatly contributed to the Committee's understanding of the Department of Transport's situation, had the latter been more helpful with detailed background on delays experienced before the five year plan commenced. The Committee concluded that information about delays brought about by the cancelled Deveson Jahn (Australasia) Pty Ltd contract and the cancelled Chubb contract for twelve rapid intervention vehicles appeared to have been withheld by the Department.\*

3.14 In evidence it was said that the Chubb vehicles "did not meet specifications and ... were taken back by the manufacturer at no cost to the Department."\*\* It was alleged elsewhere that the cost of visits to the U.K. by Departmental engineers to finalise design followed by inspections came close to bridging the 1.6% cost differential to an Australian tenderer's quote.

3.15 In view of an allegation that one of its former officers, the superintendent of Fire Services from 1971 until 25 August 1976, Mr William Charles Harris, (see Appendix 3, Question 5148) had a business association with the Walter Motor Truck Company both before and after his retirement in 1976, the Committee was concerned that the Department of Transport did not provide information on its earlier dealings with Deveson Jahn (Australasia) Pty Ltd, which through Henry R. Jahn Inc of New York was a link to the Walter Motor Truck Company. The Department said it had no knowledge of a relationship between Mr Harris and the Walter Company and the President of the Company stated that Harris did not and had not had a connection with the Company or any person in it.\*\*\*

3.16 It was alleged that Mr Harris had, as a private fire consultant, been the SE Asian agent for Walter, and was closely associated with Wormald International (Australia) which subsequently agreed to undertake part-production of Walter vehicles and be a spare parts depot for Australia and SE Asia. He was also said to be associated with Walter Motor

\* Public Accounts Committee file 81/3

\*\* Minutes of Evidence p. 263

\* Department of Transport, News Release, 78/111, 8 August 1978

\*\* Minutes of Evidence, p. 226

\*\*\* Minutes of Evidence, pp. 199, 266

Trust Company of Canada which bought the designs and spare parts of Walter Motor Truck Company, USA when that company ceased operation on 31 October 1980. The Committee received no proof of the allegations, nor did it establish Mr Harris' whereabouts or associations since August 1976.

#### Specification development

3.17 It became clear to the Committee that the Department of Transport set out to purchase ULFT vehicles which more than met the internationally agreed general description of performance standards recommended by the ICAO and the more comprehensive guidelines and draft specifications of the National Fire Protection Association (NFPA).

3.18 It appeared that the Department's development of its own specification may have been motivated by an ambition to set a new standard for use by ICAO members. The Minister for Transport, said on 8 August 1978 that the vehicles "are among the most modern in the world". The President of the Company told the Committee: "I suggest that over a period of time it (the vehicle) will become the standard vehicle in terms of the size of the vehicle - particularly the range they have contemplated here - and the fact that it is a rapid intervention vehicle..."

3.19 It was also the Department's declared intention to acquire machines suited to Australian conditions and compatible with the Australian pattern of operations\*\*. These conditions and pattern of operation were not detailed in the specification although weight of the vehicle in relation to the strength of the tarmac and problems with dust were considered important factors during discussion of the Australian requirements. The Committee was not convinced that conditions in Australia differed greatly from those in the U.S.A.

3.20 The Committee was concerned that the Department of Transport appeared not to have seriously considered standardisation of its equipment with that of the Department of Defence, which is also a user of ULFT. In the view of the Committee commonality of equipment for emergency use was most desirable whereas interchangeability of couplings and equipment with those of other fire fighting services was essential.

3.21 The Committee learned from its examination of the five shortlisted tenders that in the statement on general conditions of the tender and contract which accompanied the specification, delivery time was considered "the essence of the contract".\*\*\*

\* Minutes of Evidence, p. 276

\*\* Minutes of Evidence, p. 197

\*\*\* Public Accounts file 81/3

3.22 In the "Notes on Australian industry participation in overseas procurement", (see Appendix 8) sent to all tenderers it was clearly indicated that "final selection of a contractor... is based largely on concurrent consideration of:

- equipment performances
- product support arrangements i.e. supply and engineering support
- price and delivery arrangements
- Australian industry participation"

The weight given to each of these factors was said to vary with the operational significance of the equipment.

3.23 A major concern of the Committee was to establish whether the refinements and advances in technology built into the specification which was developed by a small group of Departmental engineers and fire service officers, were features of proven design, or whether they were innovations and advances on the 'standard' vehicle design. Evidence heard by the Committee was contradictory.

3.24 The Department drew up a specification for a machine not available "off the shelf". The Committee understands that all large specialist vehicles of this type are made to order, but it was reluctant to accept the Department's view that few fire tenders were being manufactured in the world today that met Departmental requirements or ICAO and NFPA requirements.\* The Department of Transport did not satisfy the Committee with an explanation of why it found it necessary to develop its own specification\*\*.

3.25 While persistently arguing that it had not been engaged in the development of a prototype, the Department acknowledged that parts of its specification, such as the rear engine, was a concept. It claimed that none of the vehicles in existence met departmental requirements; and demonstrated great pride in the vehicle as a forerunner in design, an opinion echoed by the President of the Walter Motor Truck Company. He told the Committee in 1980: "Because of the advancement in the state of the art that it represents, there is nothing like it operating right now."\*\*\*

3.26 The Committee noted that in paragraph 32.2 of the specification for ten 6,800 litre vehicles, special provision was made for the testing of a prototype: "In the case where the first appliance is a prototype, it may be necessary to carry out certain basic tests which may not be required on following production appliances". The Walter response was "... We have considered therefore thorough and complete testing on the first unit and inspection and general testing on subsequent units to insure conformity to the first unit which will have had thorough and complete testing."

\* Minutes of Evidence, p. 201

\*\* Minutes of Evidence, pp 194, 195

\*\*\* Minutes of Evidence, pp 215, 245, 201, 276

\* Public Accounts Committee file 81/3

3.27 The "prototype", a term used by the Department in referring to the first vehicle in its Annual Report for 1977-78 (page 68), was stated as having successfully completed testing in the USA by two Departmental officers who had authority to make changes. The Committee understands this to have been acceptance testing of the prototype appliance as described in the specification quoted in paragraph 3.26 above.\*

3.28 On the basis of evidence heard, the Committee concluded that the Department of Transport, perhaps for reasons of expediency related to its unsuccessful efforts to upgrade and replace equipment since 1972, entered into a contract with the Walter Motor Truck Company for the speedy delivery of ten vehicles, the design of which was developmental and of which a preliminary version or prototype was to be thoroughly tested by Departmental representatives.

3.29 Consequently the Committee concluded that the guidelines for the purchases involving production of a prototype promulgated by the Department of Administrative Services in 1977 which drew on the findings of the Committee's 137th and 157th Reports should have been anticipated by the Department of Transport.

3.30 During the Inquiry, the Committee learned, but not from the Department of Transport, that Oshkosh International, Inc (an unsuccessful tenderer for the 6,800 litre contract), had developed the first single engine fire tender incorporating the power divider concept in a contract with the United States Air Force between 1970 and 1977. A commercial version of the vehicle, Model M-1500, was modified to meet the specification WSFE 7500. The offer to the Department to evaluate this vehicle was not accepted. The Department did not inform the Committee of this.\*\*

3.31 From the evidence heard, it appeared that while the power divider in the Oshkosh vehicle was of proven design, the Walter Motor Truck Company could not claim to have had the design in operation in its vehicles in 1976. The Committee was informed that a Walter truck 6,800 litre prototype with power divider had not (in 1980) successfully completed preacceptance tests at Grumman Aircraft Aerodrome, Long Island New York in the USA. (See Appendix 3 Question 4165)

3.32 This confirmed the Committee's view that Australia was pioneering the operation of the Walter single engine ULFT in spite of the Company's statement that "the vehicles we propose to furnish will not be the result of a special development; they will be standard vehicles that Walter Motor Truck company has had in continuous production for many years". (See Appendix 10)

3.33 The Committee is firmly of the opinion that the type of defects and operational problems encountered with the ULFT Mark 3 were of a prototype kind for which the two phase contract, involving a separate development and testing of the prototype under Australian conditions, would have been an appropriate safeguard for government expenditure.

3.34 A tender inviting the development of a prototype, would have had the advantage of verifying that Australian and other manufacturers could meet the specification. The Committee was sensitive to the fact that judgment based on the analysis of tender documents as to whether a manufacturer could or could not comply with details of the specification may be highly subjective.\*

3.35 The Committee was informed that no pre-contract assessment of the range of Walter vehicles or any other manufacturers' vehicles was conducted by the Department of Transport. Nor were comparison trials of any sort conducted.\*\*

3.36 The Department did not brief the Committee on tendering for the third contract with Walter for six additional vehicles of 6,800 litre capacity. The Committee noted that the actual specification WSFE/7515 provided at its request was noticeably more detailed and specific than the original WSFE 7500.

3.37 The Committee was aware that options were offered in the first contract for "additional appliances which may be purchased within 18 months of the placement of the initial order at a price of \$A116,040 plus 3/4% per month up to one year and 1% per month after one year until ordered".\*\*\*

3.38 The Department apparently did not take advantage of this option and awarded Walter its third contract on 28 March 1979, twenty months after its first order for 6,800 litre vehicles on 29 June 1977. Cost per vehicle had risen from \$A135,000 to \$A168,000. (See Appendix 3, Question 5147)

3.39 Information about specification WSFE 7505 dated January 1977 for 9100 litre water capacity ultra large fire appliances was requested by the Committee. Tender schedule C2/77/74 advertised in March 1977 closed on 26 April 1977, again a remarkably short tendering time. However, the deadline was extended to 16 May 1977 to allow for a recall of tenders drawing attention to some changes in the specification.

\* Minutes of Evidence, p. 201 "...We had a large number of manufacturers who claim to meet the ICAO requirements and p. 231 "... we cannot accept 'shall comply'".

\*\* Minutes of Evidence, p. 217

\*\*\* Public Accounts Committee File 81/3

#### Tender evaluation - administration

3.40 The Committee sought evidence from the Department on the criteria and methods used in assessing the twenty basic proposals offered by eleven tenderers. It pointed out that in making the judgement that only one vehicle came within its specification, the Department left itself open to the allegation that it had set its specification with one specific type of vehicle in mind.\*

3.41 Not wishing to infer that the practice is of itself undesirable, the Committee nevertheless notes with some disquiet that Departmental witnesses were not aware that three engineers and one fire services officer participated in both the small working group which drew up the specification and the group which assessed the tender quotes received.\*\*

3.42 Specification WSFE 7500 noted that at the discretion of the Department, tenderers may be requested to confer with departmental officers on any or all of a range of matters including clarification of commercial and or technical aspects of the tender, detailed requirements and standards of the specification, alternative offers from tenderers and inspection, testing and acceptance of the prototype or first appliance. It was alleged by Australian manufacturers that discussion of the specification with them was inadequate. Departmental witnesses did not satisfy the Committee that dialogue and relations with Australian manufacturers was satisfactory.\*\*\*

3.43 The Committee was very critical, considering the degree of urgency expressed, of the seventeen month delay in the placing of order H33855 on 29 June 1977 for ten ULFT. The tender had closed on 27 January 1976. The Department reported that:

- initial technical evaluation took five months; five short-listed companies were given four weeks to provide revalidated prices and revised delivery schedules, the validity of their offers having expired;
- further technical assessment, detailed examination of contractual considerations, and administrative reassessment of the requirement for vehicles took a further six months;
- in the following four months, the offers had to be revalidated, again technically assessed, approved by the Department's Central Contract Board and its Minister.

\* Minutes of Evidence, p. 235

\*\* Public Accounts Committee File 81/3

\*\*\* Minutes of Evidence, pp. 228, 230

3.44 The Department said that the initial technical evaluation taking five months was not unusual, considering the complex nature of this tender.\*

3.45 The Committee noted with concern that excessive delays in placing an order affects the reputation of the Department of Transport as a purchaser. It recommends that the Department examine its management objectives in the processing and evaluation of tenders with this in mind.

3.46 It was alleged that unsuccessful tenderers for specification WSFE 7500 were not advised of the contract awarded to the Walter Motor Truck Company. The Committee recommends that in the interest of improving public relations, the Department individually advise all tenderers concurrently of the outcome of the tender, a practice the Committee would consider normal and courteous practice.

#### Conclusions

3.47 In this Chapter which discussed the immediate background to and preparations leading to the purchasing program for ULFT under scrutiny, the Committee reported a number of findings. Restated in summary, they are that:

- information was withheld about relevant cancelled contracts and links to the Walter Company (3.13)
- standardisation of equipment with that of Defence appeared not to have been considered seriously (3.20)
- the Department did not provide satisfactory explanation for the need to develop its own specification (3.24)
- the design of ULFT Mark 3 was developmental (3.28)
- the guidelines in Commonwealth Purchasing Circular 77/4, based as they are on earlier Reports of this Committee, should have been anticipated (3.30)
- the power divider was not of proven design in the Walter vehicles (3.31)
- ULFT Mark 3 would more appropriately have been purchased through a two stage contract, separating the development of a prototype (3.33)
- three engineers and one fire services officer were involved in both specification development and tender assessment (3.41)

\* Public Accounts Committee, File 81/3



- excessive delays in contracting has affected the reputation of the Department of Transport (3.44)
- unsuccessful tenderers were not advised of the award of the contract. (3.46)

#### CHAPTER 4

##### EVALUATION CRITERIA

4.1 The Committee readily acknowledges the technical and administrative complexity of the task of evaluating tenders for high cost equipment and the weight of the associated responsibility. A Departmental witness alleged that information provided by tenderers was often inadequately detailed for a satisfactory assessment of their offers, making the task even more difficult.\*

4.2 It noted the Department's intention to use a more detailed questionnaire within a specification to meet its needs for technical information. The Committee warns however that in practice, the additional time and cost to some tenderers might be prohibitive, thereby reducing competition for Department of Transport contracts. Views to this effect were put to the Committee. Close surveillance of the practices of other Government buyers of high cost equipment would seem desirable.

4.3 In its examination of the tender evaluation and purchasing procedures used in the Department of Transport, the Committee focussed on a number of non-technical criteria

- Australian industry participation in overseas procurement;
- cost, including true comparison of overseas with local tenders;
- delivery time and
- warranty including provision of spare parts, availability of trained personnel

##### Australian industry participation

4.4 From the evidence heard, the Committee was not confident that the then Australian government requirement for offset orders to be placed in Australia against major purchases of equipment overseas was a major consideration of the Department of Transport.

4.5 The Department was persistent in its view throughout the hearings that Australian manufacturers were unable to meet the technical requirements of specification WSFE 7500. (See Appendix 1 page 2) The Committee heard evidence to the contrary and noted that some Australian manufacturers appear to have a healthy record of export orders for fire tenders.

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\* Minutes of Evidence, p. 197 "... we have had great difficulty in getting manufacturers to answer and to provide adequate details to enable their offers to be assessed."

4.6 The Department indicated it was aware of the Australian Offsets Program and had recently received new guidelines. "Prior to that", said a witness, "there were no firm guidelines." The Committee was critical of the Department's apparent lack of observance of a Government decision in 1970 requiring offset arrangement in Australia against major purchase of equipment from outside Australia.

4.7 The Walter tender specifically noted that paragraph 28 of the General Conditions of Tender Schedule C2/75/191 on Australian Industry Participation in Overseas Procurement was understood and acknowledged and provided a statement to that effect.\*\*

4.8 The Department confirmed that offset conditions were included in the tender schedule, and that the Walter Motor Truck Company was not required to honour the off-set conditions. It indicated that the Department of Productivity Offset Secretariat was quite satisfied with the undertaking from Walter at the time that the Company would look into the matter for any future contracts.\*\*\* Offset arrangements generally tended to be subordinate to criteria such as performance, price, delivery and supportability, the Committee was advised.^

4.9 The Committee concluded that the delivery specification was such that it would be impossible for an overseas manufacturer to organise commercially any offset arrangement in Australia in the time available. This was also the explanation offered by the Walter Company (See Appendix 17).

4.10 Certainly it was clear to the Committee that the Department of Transport, contrary to government guidelines, had regarded Australian industry participation subordinate to speed of delivery. The Department accepted this assessment and explained that the requirement for new vehicles had become urgent if Australia was to continue to meet airport safety standards of the ICAO.^

4.11 The Committee noted that in a later contract, that for nine ULFT of 9,100 litre capacity awarded on 30 November 1978, the Walter Motor Truck Company had entered into a

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\* Minutes of Evidence, p. 240

\*\* Public Accounts Committee, File 81/3

\*\*\* Minutes of Evidence, p. 243

^ Public Accounts Committee, File 81/3

^^ Minutes of Evidence, p. 245

licensing arrangement with Wormald International (Australia). The President of the Company acknowledged when giving evidence to the Committee, his understanding that "under no circumstances would an award be made unless a satisfactory arrangement was put into motion.\*\*

4.12 When the Walter Motor Truck Company failed on 31 October 1980, the \$1,879,360 contract for nine incomplete ULFT of 9,100 litre capacity was renegotiated with the former agent, Wormald International (Aust) Pty. Ltd at an additional cost of \$16,677 per vehicle and a new contract price of \$1,991 million.\*\*

4.13 The Committee acknowledged that circumstances surrounding the purchase of ULFT may have decreased the importance of Australian industry participation as a criteria in assessing tenders. The Committee feels bound however, to remind the Department that objectives of the Government's Australian Offsets Program include the stimulation of technological advancement in Australian industry and the broadening of its capabilities. Other factors taken into consideration are the extent to which Australian design and development resources can be utilised and the work load that can be obtained for underutilised sectors of industry of technological or strategic significance. (See Appendix 8)

4.14 The Committee concluded that in relation to tender schedule C2/75/191 for ten 6,800 litre vehicles, the successful tenderer did not comply with the requirements of the specification for Australian offsets. This raised doubts on the probity of departmental officers, for this arrangement could be interpreted as an undertaking given for the future which under normal circumstances would be impossible to foresee.

4.15 The subsequent contract for 9 ULFT of 9,100 litre capacity awarded to the Walter Motor Truck Company saw the establishment of an Australian agent and sub-contractor, an arrangement which did meet the offset requirement and was, in the opinion of the Committee, brought about by the Australian Government requirement for offsets.

#### Price

4.16 When asked whether price was the major determining factor in the selection of the successful tender, the Department answered that it was a significant factor but that the concern was to get the vehicle best able to perform the task.\*\*\*

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\* Minutes of Evidence, p. 298

\*\* Department of Transport, News Release 81/1579, 19 January 1981

\*\*\* Minutes of Evidence, p. 239

4.17 The Department provided the Committee with confidential details of twenty tender offers (plus variations) from eleven tenderers. Quotes ranged from \$A84,000 to \$190,000. Five short listed tenderers provided revalidated offers in August 1976 which ranged from \$143,000 to \$175,000. (See Appendix 11) The Department warned that for accurate comparisons to be made, daily rates of exchange for non-Australian currencies would have to be checked.

4.18 The Committee asked for specific comparative information about the unsuccessful tenders, particularly those on the shortlist. No explanation was provided why the short list comparison received was for four tenders only.\* The summary of tenderers bids provided by the Department had listed a fifth as being shortlisted, which was nearest to the successful tenderer in revalidated firm price.

4.19 During the Inquiry, the Committee was presented with a number of different figures on the price per Walter 6,800 litre vehicle.

- (a) \$A181,709 at 26 January 1976
- (b) \$A124,110 at 25 February 1976, a correction of the initial tender
- (c) \$A112,115 at 31 August 1976 (revalidated)
- (d) \$127,000\*\*
- (e) \$A136,686 at 25 March 1977, updated and including negotiated modifications.
- (f) \$A135,030 at 3 April 1979 (See Appendix 3, Question 3313)
- (g) \$A143,340 at 5 June 1981 consisting of
  - i) base duty free price \$A112,115.00
  - ii) duty 25,225.87
  - iii) freight 5,000.00
  - iv) insurance 1,000.00

4.20 The Committee was particularly concerned to identify costs which had been incurred additional to the contract price. It ascertained through questioning Departmental officers that the travel and associated costs of \$A9,560 for two senior officers to conduct pre-acceptance testing in the USA from January 31 to March 9 1978 had been at Departmental, not the contractor's expense.\*\*\*

\* Public Accounts Committee, File 81/3

\*\* Minutes of Evidence, p. 239

\*\*\* Public Accounts Committee, File 81/3

4.21 While all testing costs were specified to be the responsibility of the contractor, the overseas location of the contractor generated additional costs to the tender price. The Department had also supplied Australian manufactured minor parts to Walter for installation in the USA.

4.22 The Committee was concerned that associated costs such as travel were apparently not regarded by Departmental officers as adding to the total cost of that contract. The Committee, recommends that such costs be clearly and separately identified as part of the total cost.

#### Comparative price of Australian and overseas tenderers

4.23 The Committee was assured by Departmental witnesses that Australian tenders had been carefully considered and overseas tenders adjusted to incorporate freight, duty, clearance insurance and other costs to bring it up to the "into store" delivery cost required in the specification.\*

4.24 A Departmental witness informed the Committee that there was a large difference in comparative price between the selected tenderer and the unsuccessful tenderers.\*\* From the confidential information subsequently provided by the Department it seemed to the Committee that another overseas manufacturer's tender was very competitive on price, delivery and spare parts support to the successful tender.

4.25 The specification required prices to be quoted for delivery of the vehicles to Melbourne. All tenderers except Walter complied.\*\*\* In its tender, the Walter Motor Truck Company acknowledged that requirement. It reported that in several conversations with Mr Robert Ray and Mr William Bath, of the Australian Consulate in New York City, it had been indicated to them that tenders FOB origin or FAS vessel New York would be entirely acceptable.^

4.26 Because the Commonwealth carries its own insurance, no insurance premium was paid. For comparison purposes at the tender stage, the Department calculated an appropriate allowance for the "into store" insurance premium. Damage sustained by two (out of sixteen) vehicles in transit to Australia was described as minor. It was repaired at a cost of \$1,064 which was met by the Department, and is additional to the contract price.^

\* Minutes of Evidence, p. 318

\*\* Minutes of Evidence, p. 346

\*\*\* Minutes of Evidence, p. 315

^ Minutes of Evidence, pp. 315-318

^^ ibid.

4.27 Freight and clearance charges for vehicles delivered to Melbourne was \$A5,532.68 each. For comparative purposes, appropriate allowances were loaded onto the Walter tender price to bring it up to the "into store" cost. The Department of Transport paid freight and clearance charges amounting to \$88,522.88.\*

4.28 The Committee found that costs incurred additional to the contract price included acceptance testing \$9,560, damage in transit \$1,064 and \$88,522 for freight, a total of \$99,146.

#### Delivery

4.29 In evidence it was made clear that urgency of delivery was an important factor for the Department of Transport. The statement "General Conditions of Tender" issued with schedule C2/75/191 stated: "as delivery time is the essence of the contract tenderers are requested to specify firm factual delivery times".\*\*

4.30 Its importance was further emphasised in a telex message from the then Minister for Transport to RFW Truck Manufacturing Co on 27 September 1977. It said in part "... Walter Truck Co was the only suitable tender to meet technical and delivery requirements of Department. Latter factor most important in this case due to pressing fire fighting needs at some Australian airports..."\*\*

4.31 The Committee was interested to establish what weight this criteria may have had in the assessment of tenders. It was alleged by the Department that a number of Australian tenderers could not deliver to the Department's time schedule. The specification called for "the earliest and latest start and finish times" and "delivery dates".

4.32 When revalidated quotations were sought on 4 August 1976 from five short-listed tenderers, they were asked to make offers based on

- a) delivery of 8-10 vehicles in the fiscal year 1977/78 and
- b) best delivery that can be offered. (See Appendix 12)

4.33 The Walter Company offered "deliveries to commence during the tenth month following notice of award or firm order date at the rate of not less than two appliances per month nor

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\* Public Accounts Committee, File 81/3

\*\* ibid

\*\*\* ibid

^ Minutes of Evidence, p. 240

more than three".\* The acquisition (ex New York) of the ten vehicles occurred between 28 May and 20 July 1978. (See Appendix 3, Question 4167)

4.34 Delivery schedules given with the revalidated prices (31/8/76) by the five short listed companies were as follows: (See Appendix 11)

1. Commence with first unit on 15 April 1977 (ex New York), then 4 units per month. (Dahkosh)
2. Five units by 31 July 1977, the remaining 5 by 30 September 1977, any additional quantity 3 per month thereafter. (Walter)
3. Commence in September 1977 at the rate of 1 per working month. (Wormald)
4. Commence October 1977 at the rate of 2 per month. (Chubb)
5. As specified; 8-10 during 1977/78 and the balance in 1978/79. Originally offered first unit after 27 weeks followed by 1 unit every 6 weeks. (Presha)

4.35 Delivery being of vital concern to the Department, the Committee was surprised that there appeared to be no penalty clause in the WSFE 7500 specification for loss of time. For the subsequent contract for the nine 9,100 litre vehicles, renegotiated with the Australian agent, penalty clauses for lateness in delivery did apply.\*\*

4.36 It was said in evidence that early delivery had been of prime importance when tenders for ULFI were first called by the Department in April 1972. A certain amount of scepticism was therefore attached to that requirement by tenderers. The Department's failure to purchase major fire fighting equipment was however acknowledged as having created a crisis situation demanding urgent action.

4.37 The Committee viewed this situation with concern, and concluded that it reflected deficiencies in management of the purchasing program of the Department of Transport since 1972.

4.38 The Committee was not able to establish with finality what importance the Department placed on early delivery in the evaluation of tenders received in comparison with technical requirements and economic restraints. It appeared to the Committee that speed of delivery may have compromised the Department's choice of vehicles, but had it been the major factor, delivery schedule 1 (paragraph 4.34 above) seemed to be equally if not more attractive than the Walter schedule.

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\* Public Accounts Committee, File 81/3

\*\* Minutes of Evidence, p. 340

#### Service, spare parts

4.39 Warranty terms for the contract were said to be a major consideration in the assessment of tenders. "Departmentally", said a witness, "I think the major factor would be the availability of spares and service in Australia".\* Each tenderer was asked to furnish details of the guarantees he was prepared to offer in respect of vehicle performance and the replacement or repair of defective parts within a period of twelve months after acceptance.\*\*

4.40 In addition, tenderers were required to provide a detailed list complete with prices of the spare parts which are considered necessary to be held by the Department to meet any requirements which might arise during the first twelve months operation of the vehicle.\*\*\*

4.41 Among the five short-listed tenders, only the Walter Motor Truck Company could not guarantee spare parts in Australia. Two other overseas tenderers indicated some parts were available in Australia. One noted that some spares might be available through the Royal Australian Airforce which had identical vehicles to the one offered. (See Appendix 11)

4.42 In its warranty, the Walter Motor Truck Company undertook to arrange for the appointment of its qualified agent in Australia who would stock service parts for the 6,800 litre vehicle. Where spare parts were not in store in Australia, it was proposed they be airfreighted to Melbourne. The agent would have factory trained personnel available to assist in the installation of parts.

4.43 The Committee considered it illogical that Walter's compliance with the requirement for Australian industry participation in the second tender (of 30 November 1978 for nine ULFI, 9100 litre), was regarded by the Department of Transport as a fulfilment of the undertaking in the initial tender to "have established a qualified and competent agent months before the first vehicle would be scheduled to arrive in Australia".

4.44 The Committee disagreed with the Department that the warranty requirements in relation to spare parts and service for the 6,800 litre vehicle had been met by the Walter Motor Truck Company. It acknowledged however, that in fact, the company readily supplied urgent spare parts, and incurred considerable costs in making repairs and modifications under the terms of its contract, and beyond the twelve month warranty period for problem parts.\*\*

\* Minutes of Evidence, p. 240

\*\* Minutes of Evidence, p. 171

\*\*\* ibid

^ Public Accounts Committee, File 81/3

^^ Minutes of Evidence, p. 256

4.45 The Committee was satisfied by Departmental evidence that arrangements subsequently made will guarantee a reliable supply of spare parts in Australia for the twenty-five Walter fire tenders. The Walter Motor Trust Company of Canada had in the meantime linked themselves with Abbey Engineering Pty Ltd in Australia and would be the source for parts in the foreseeable future.\*

#### Conclusions

4.46 This Chapter discussed tender evaluation and focussed on non-technical criteria used to select the successful tender. In summary, the Committee found that:

- Walter was not required to honour the off-set condition applying to major overseas purchases of equipment (4.8, 4.14)
- the delivery specification precluded overseas manufacturers making offset arrangements (4.9)
- the Department regarded Australian industry participation less important than speed of delivery (4.10)
- other objectives of the Australian Offset Program such as the stimulation of technological advancement and the broadening of industrial capabilities seemed to be overlooked (4.13)
- a comparison of unsuccessful tenderers provided by the Department was for only four, of the five shortlisted tenderers (4.18)
- travel and associated costs of \$9,560 for preacceptance testing in the USA were paid by the Department (4.20)
- damage in transit cost the Department an additional \$A1,064 on the contract price (4.26)
- freight and clearance charges of \$88,522 was paid by the Department (4.28)
- delivery time was considered the essence of the contract (4.29)
- early delivery had also been of prime importance when tenders were first called in 1972, reflecting deficiencies in management (4.36, 37)
- of five short listed tenders, only the Walter Company could not guarantee spare parts in Australia (4.41)

\* Minutes of Evidence, p. 348

- warranty requirements for spare parts and service were not met in the first Walter contract (4.44)
- satisfactory arrangements now exist for spare parts and service support (4.45)

## CHAPTER 5

### TESTING, REPAIRS AND MODIFICATIONS

#### Acceptance testing and quality control in manufacture

5.1 Acceptance testing\* of the prototype, was conducted at the manufacturer's plant in the USA by Departmental officers Davis and Gascoigne between 31 January and 9 March 1978. It excluded cross country testing which was subsequently undertaken in Australia.

5.2 The Committee is aware of the complications which flow from overseas contracts which require intensive and extensive testing of the prototype vehicle being purchased. It accepts that on the basis of its past experience, the Department of Transport chose to have its own officers undertake acceptance testing in the USA rather than engage a local consultant to do so on their behalf.\*\*

5.3 The Department reported that in the course of 150-200 hours of test operation of the first production model between January and March 1978, some hundreds of changes were ordered and authorised. Only the pump roll control was not entirely to the testing officers' satisfaction, and changes ordered were done after they had left. The Department did not identify the first production vehicle and its subsequent history of operation.\*\*\*

5.4 The Department insisted that acceptance testing of the first production vehicle was sufficient. It had the benefit of a twelve month warranty and a firm price and considered it more advantageous to transport the vehicles to Australia and undertake further testing in Australian conditions under warranty.^

5.5 Testing procedures specified by the Department of Transport had changed, according to one of its engineers. Whereas at one time it was only specified that the vehicle would be "thoroughly tested prior to acceptance", the Department had returned to the earlier practice of setting out a test program. The change was linked to the experience with the initial Walter contract and testing procedures were incorporated into the specifications for the third contract (6,800 litre) awarded to Walter, and for the subsequent rapid intervention vehicles tender.^

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\* Minutes of Evidence, pp. 358, 359

\*\* Minutes of Evidence, p. 344

\*\*\* Minutes of Evidence, pp. 248, 249

^ Minutes of Evidence, pp 250, 344

^^ Minutes of Evidence, p. 345

5.6 The Committee was advised that the Department of Transport testing requirements were not significantly different from the world-wide standards set down by ICAO. It was not established in what way the Department of Transport testing varied, except that the prototype was not tested for cross country performance as recommended by the ICAO.\*

5.7 Evidence heard in relation to the "training" carried out in Australia prior to each vehicle being commissioned for service is at the centre of the difference of opinion held by the Department of Transport and the Walter Motor Truck Company. It was essentially during training that breakdowns necessitating repairs and modifications of all vehicles occurred.

5.8 The Committee concluded that it may well have been the case that the American manufacturer was not fully aware of the rigorous standard of training to be undertaken at various Australian airports with differing climates and terrain. However, it was left in no doubt that quality control during manufacture of the remaining nine vehicles in the initial contract was not good, and resulted in defects attributable to faulty material, workmanship or design.

5.9 It seemed to the Committee that Walter's honouring of the warranty arrangement salvaged a situation which might otherwise have been an even more costly embarrassment to the Department of Transport.

#### Repairs and modifications

5.10 Many of the modifications and repairs made to vehicles during training in Australia and before they were commissioned, were attributable to those features of the vehicle which set it apart from most other ultra large fire tenders, in particular the power divider.

5.11 The Department stated that some faults were accepted and dealt with as normal warranty problems, but ten fault types required minor modifications to all vehicles. Sixteen fault types required some vehicle design upgrading on all vehicles. Of these, thirteen were associated with the power divider unit. (See Appendix 2) Defects in the vehicles are listed in Appendix 14 together with an explanation of why they occurred and who was responsible for faults.

5.12 The Committee heard contradictory advice on the reasons for the repairs and modifications required on all 6,800 litre ULFTs. The Department insisted that poor quality control during manufacture resulted in defects which had to be made good in Australia. They had claimed costs from the manufacturer, who had agreed to meet such costs. A claim for \$14,000 was outstanding in April 1981.

5.13 The President of Walter Motor Truck Company in evidence to the Committee acknowledged some problems with the power divider, but considered the initial operational problems to be part of the 'debugging' process. The Company had thoroughly investigated problems, involving its USA-based experts, and had concluded that the vehicles had been subject to rigors and stress not anticipated which had exposed hitherto unknown weak links. (See Appendix 5)

5.14 It was the view of the Walter Motor Truck Company that the testing of vehicles in Australia prior to commissioning was extremely rigorous, involving a standard of stress not indicated in the vehicle specification. Mr McDougal in evidence suggested that the Australian training standard was excessively rigorous in comparison to standards met by his company in the USA and "was not normal in comparison with any other country in the world, with the possible exception of the Dominion of Canada."\*

5.15 The experience suggests that more information about Australian training standards might usefully be issued to overseas manufacturers together with the specification. However, the Department reported that the levels and method of training had been discussed with the Walter Vice-President. (See Appendix 15)

5.16 Attention was drawn by this contract to the difficulty of overseeing the manufacturing and testing process in contracts awarded to overseas companies. Clearly written into the specification was the normal requirement that the Department's nominated inspectors would have free access at all time to the plant to ensure that the standard of materials and workmanship is acceptable. In fact, production was not monitored for or by the Department. Consideration might be given to contracting a local engineer to monitor quality control on the basis of tests conducted on the prototype should a similar situation arise again.

5.17 The Committee concluded that what was described as "debugging" by the manufacturer and teething problems by the buyer in making a vehicle operational exceeded the costs and delays normally associated with that process. They were more in keeping with the testing and teething problems associated with a prototype vehicle, and regrettably, the Department had sixteen such vehicles to commission.

5.18 The Committee acknowledged the Department's explanation that vehicles were intended to go through a "long period of training" before they were commissioned. However, repairs and modifications were required to be made to all sixteen vehicles over a considerable period, and witnesses gave no indication what they meant by a 'long period'.\*\*

\* Minutes of Evidence, p. 287

\*\* Minutes of Evidence, p. 252

5.19 Information requested by the Committee revealed that the sixteen vehicles were out of service during the period from arrival at its destination to its commissioning for 364 days. Since commissioning, vehicles had been out of service for 1303 days, up to 4 April 1980, and an additional 239 days up to 30 June 1980. No information was available on the period before the training period commenced. (See Appendix 16)

5.20 Materials used by the Department of Transport in making modifications and repairs up to the date at which the vehicles were commissioned amounted to \$3,498 and the total material costs up to 30 January, 1980 was \$30,253.

5.21 The Committee appreciated that departmental records did not differentiate between repair and modification labour costs. Between 40 and 60% of the labour expenditure on each vehicle was estimated to be on modification work. Labour costs to the Department of Transport totalled \$216,589 up to 30 January 1980.

5.22 Costs for the repair, modification and maintenance of the 16 ULFTs totalled \$246,842 up to 30 January 1980. The Committee considered the cost of repairs and modifications, a major component of this total cost, an extraordinary additional cost to the original contract price.

5.23 The Committee is not aware of the total costs incurred by the manufacturer in underwriting modifications and repairs to the ULFT, but understands them to have been considerable. It was disappointed that the President of the Company failed to produce further information promised at the hearing in March 1980.

5.24 In evidence the Chief Engineer had estimated that total expenditure on modifications averaged at \$6,883 for each of the first ten vehicles in the first two and a half years of service. It was a cost for which the Department had sought reimbursement from Walter, and to which the company had agreed. The outstanding claim was for \$14,000 off set against a forfeited security deposit of \$46,984.\* It appeared that the Department put no money value on the labour of its employees in assessing the cost of repairs and modifications.

5.25 Modifications and repairs have now resulted in a vehicle said to be operating extremely well and "an operator's dream". The Department said it is entirely satisfied with its purchase, but appeared reluctant to acknowledge the total cost involved.\*\*

\* Minutes of Evidence, p. 358, 359

\*\* Minutes of Evidence, p. 360

## Conclusions

5.26 This Chapter discussed acceptance testing and the cost of the repairs and modifications required to make the new vehicles operational in service in Australia. In summary, the Committee found that:

- cross-country testing was not included in acceptance testing of the prototype (5.1)
- the Department insisted that acceptance testing of the first production vehicle was sufficient (5.4)
- testing procedures of the Department had changed from broad to specific requirements during the Walter contracts (5.5)
- the manufacturer may not have been fully aware of Australian training standards (5.8)
- quality control during manufacture was not good (5.8)
- many modifications and repairs under warranty related to the power divider (5.11)
- production was not monitored by or for the Department (5.16)
- since commissioning, the sixteen vehicles had been out of service for 1542 days, up to 30 June 1980 (5.19)
- materials used in repairs and modifications up to 30 January 1980 cost \$30,253 (5.20)
- labour costs up to 30 January 1980 on repair, modification and maintenance totalled \$216,589 (5.21)
- \$14,000 reimbursement was sought from Walter for modification work; other additional costs to the Company are not known (5.24)
- the Department is entirely satisfied with the Walter ULFT (5.25)



. CHAPTER 6

GENERAL CONCLUSIONS

Review of purchasing procedures

6.1 Throughout the Inquiry, the Committee members expressed disquiet about the purchasing procedures of the Department in relation to the three contracts with the Walter Motor Truck Company under scrutiny. It pursued aspects of the procedures aggressively in the hope of bringing about their review by the Department of Transport and the achievement of a uniformly high standard in the purchases of large equipment by the Australian Government through its various departments.

6.2 It seemed to the Committee that tensions thought to exist throughout the Australian Public Service between so called 'professional' and administrative and clerical staff might be an underlying factor in the Department of Transport's purchasing problems. Should this be the case, consideration might profitably be given to developing management skills among teams of officers such as those whose specialist functions and responsibilities need to be integrated for purchasing procedures to be efficient and effective.

6.3 The Committee reserved its judgement on the professional competence of engineering and fire services staff associated with the three contracts. It considered employing an independent appropriate consultant to assist it with the technical aspects of the Inquiry, but concluded that for its purposes it sufficed to make known its view that much closer liaison between the Department of Transport and other government departments with experience of purchasing large equipment, namely the Departments of Administrative Services and Defence, is necessary.

6.4 The Committee notes that only the Departments of Transport and Housing and Construction operate independently from the Department of Administrative Services, which is the Government's purchasing adviser. It understands that the respective purchasing responsibilities of the Departments of Transport and Administrative Services are being examined to identify what rationalisation might be appropriate.

6.5 The Committee is of the view that administrative procedures and practices need to respond to changing circumstances. For the record, it points out that contrary to stated practices, the Department did enter into an arrangement with Wormald (International) Pty Ltd for progress payments. It was an issue on which the Committee heard evidence to the effect that Australian manufacturers generally could be more competitive for tenders if progress payments were available to them. Overseas buyers were said to offer progress payments as normal practice.\*

6.6 Minutes of evidence of the four days of hearings during the Inquiry contain statements by Departmental officers which amply acknowledge the room for improvement in purchasing and contract procedures. The Committee was pleased to hear at the 28 April 1981 hearing that as part of the cyclical review of commercial and other activities in the Department, a high priority review of the procedures for purchasing has been ordered. The Committee considers this action to be a positive outcome of its Inquiry.

#### Australian industry participation

6.7 The Committee closely examined the Department on its attitudes and practices in relation to the Government's policy on Australian industry participation. It concluded that for the initial contract with the Walter Motor Truck Company, the requirement for offsets for all purchases of overseas origin was not met and in effect was comparatively inconsequential as a selection criteria for determining the successful tenderer.

6.8 The Committee was aware that the Australian Offsets Program had its origin in a decision by Government in 1970, for offset orders to be placed in Australia against major purchases of defence equipment and civil aircraft of overseas origin. The program was extended to include all major purchases by the Government. It was surprised that the Department's knowledge of this requirement was apparently recent.

6.9 The arrangement made with the Walter Motor Truck Company for the initial contract left much to be desired. The Walter undertaking, after considerable delays in response to the Australian Offsets Program Secretariat, on a "best effort" basis amounted to an Australian content in the first order of ten 6,800 litre vehicles of special lights, horn and accessories indicated by trade name in the specification. In its tender, Walter indicated that "on-going service support and spares availability will maximise to the greatest extent possible Australian content."

6.10 The record showed that in its second contract with the Department of Transport the Walter Company had realised the offset requirement would have to be met.\* It made an agreement with Wormald for the part production (30-40%) of their vehicles for Australia and the SE Asian area and the establishment of Wormald as the spare parts depot for the region. In this way it could be anticipated that offset requirement for the original contract might be met in arrears, if Walter succeeded in winning future Australian contracts.

6.11 With the failure of the Company in 1980, the contract was renegotiated with Walter's Australian agent, which resulted in a situation where Australian industry

participation requirements over the three contracts worth \$A4.3 million were met.

6.12 The Committee noted however that the Department of Transport might have provided earlier and stronger support to the Offsets Secretariat, which appeared to be in the position of making the best of a 'fait accompli'. Departments are advised to establish and maintain close working relations with the Offsets Secretariat when engaged in overseas purchasing.

#### Checking financial viability of contractor

6.13 It was a major concern of the Committee that the Department of Transport had not checked, and apparently does not check, the credit worthiness and financial viability of short-listed and successful tenderers. The Committee considered a "Dun and Bradstreet" report to be a minimum requirement.

6.14 The Committee rejected the argument that the Walter Company was financially viable because it had completed "other substantial contracts". It considered that the President of the Walter Motor Truck Company had perjured himself when he gave evidence that his Company was in a sound financial state.\*

6.15 Evidence gathered by the Committee gave cause for concern about the financial situation of that Company some two years before the first contract with the Department of Transport was signed.

6.16 The Committee expects the Departments to carry out normal commercial investigations before contracts are signed as an improved protection of government expenditure.

#### Use of overseas representatives

6.17 The Committee was strongly critical of the Department's lack of use of its own overseas representative in Washington D.C. and of the Trade Commissioner Service. It appeared to be in the nature of an oversight or an under-estimation of the role overseas representatives might undertake.

6.18 In evidence it became clear that the Department had had no contact at all with the Trade Commissioner in New York, who was physically closest to the manufacturer's plant at Voorheesville, N.Y. Contact with the Department's Counsellor in Washington DC was made belatedly in June 1980, when the 9100 litre vehicles, the second contract with Walter, were three months late in delivery.

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\* Minutes of Evidence, p. 320

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\* Minutes of Evidence, p. 298

6.19 However, the Australian Consul-General's Office in New York was involved in negotiations with Walter (see paragraph 4.25 above) and had received a copy of correspondence to two short-listed manufacturers in the USA in August 1976 when prices were revalidated. Subsequently Consulate staff were involved in taking delivery in New York and arranging payment to Walter.

6.20 The Committee is of the view that checks of the Company's financial standing and reputation could have been facilitated by the government's overseas representatives in North America. They might also have assisted with the monitoring of production following the testing of the original prototype vehicle by the Department's Australian-based officers.

6.21 It seemed to the Committee that Departments awarding overseas contracts should, at the evaluation stage formally consider the appropriate involvement of the Government's representation in the region. Arrangements should be made to monitor or have monitored the financial situation of the contractor, quality control in manufacture, and production and delivery schedules.

#### Acceptance testing

6.22 The Committee offers no simple solution to the problems associated with the testing overseas of equipment being purchased to ensure that the unit is fully capable of performing the specified tasks for which it is being procured.

6.23 The experience with Walter Ultra Large Fire Tenders points to the need for careful assessment in future of the potential additional costs involved when testing is not done under Australian conditions and, in particular, where the close monitoring of quality control may be desirable.

#### Developmental specifications

6.24 It seemed to the Committee that most of the discussion as to whether the Walter single-engine power-divider 6,800 litre fire tender was prototype or a standard vehicle was semantic.

6.25 The Inquiry's findings direct the attention of officers responsible for specification design and evaluation to the need for an objective professional judgement about proven design and developmental design, and careful consideration of the lessons learned from problems with previous contracts for large equipment which involved the development of a first unit requiring thorough testing before further units were authorised.

6.26 The Committee again draws attention to the findings of its 137th and 157th reports (Chapter 2 paragraphs 1-3 above) and recommends that in addition to formal and detailed assessment of available equipment, first hand experience of the operation of the equipment be required where practicable before a decision is made about a contract for production units.

6.27 The Committee reaffirms the desirability of two contracts separating the development of a prototype from that for production units which meet specifications and performance requirements.

#### Relations with Australian manufacturers

6.28 Evidence heard by the Committee pointed to unsatisfactory relations between the Department of Transport and Australian manufacturers of ultra large fire tenders. Specific reasons were difficult to substantiate, but grievances perceived by some manufacturers were real enough to be an obstacle to their future tendering, and a continuing blemish on the reputation of the Department.

6.29 The Committee was advised that one manufacturer had, after careful consideration, decided to ignore for the time being, tenders for vehicles called by the Department of Transport until key officers involved with tender assessment were moved or retired.\*

6.30 Some intervention in this undesirable situation by senior management of the Department of Transport would seem to be warranted.

#### Relations with the Fire Fighters' Union

6.31 The Fire Fighters' Union, whose members operate all fire tender vehicles at major Australian airports, submitted evidence which suggested that consultation and co-operation with the Department of Transport was not good despite of the efforts by the Union to be involved in establishing driving and operating requirements of ultra large fire tenders since 1972.

6.32 The Union suggested that acceptance testing of vehicles should be carried out only in Australia, and by a joint departmental and union committee such as that proposed, they claim, in 1972. Worker participation would appear to be an area where the Department's management might take initiatives.

6.33 In relation to the Walter contracts and the operational problems of the vehicle, the Union suggested that better records of faults and costs should be kept so that information about apparent faults occurring in all vehicles

can be communicated more quickly. It recommended that vehicles of unproven design be avoided.

#### Inquiries - the role of Departments

6.34 The Inquiry into the purchase of Ultra Large Fire Tenders by the Department of Transport directed attention to the nature and quality of the submissions, statements and evidence called for by the Committee in performance of its duties. The Committee has responsibility for reporting to both Houses of Parliament and to recommend changes and improvements on any matter that the Committee believes Parliament's attention should be drawn.

6.35 When Departmental officers anticipate the information needs of the Committee in their submissions, valuable time is saved and confidence is built up. When communications are good, explanations may satisfy the Committee or acceptable action may be negotiated which might make a formal public inquiry unnecessary.

6.36 The Committee is realistic about the pressures under which many public servants work, and concedes room for human error in judgements and decisions made in the normal course of operation. When these occur, its concern is for remedial action, the containment of unnecessary expense and action to prevent future errors being made.

6.37 Public inquiries are in themselves time consuming and expensive. They remain desirable if public accountability is to be maintained and promoted, but their course could be greatly facilitated by the positive cooperation of all Departments and authorities.

6.38 The Committee recommends that Departments and Authorities covered by the Public Accounts Committee Act 1951 examine their potential for working closely with it to improve public accountability and, where relevant, public administration and management.

#### APPENDIX 1

#### INQUIRY INTO THE AUDITOR-GENERAL'S REPORT 1978-79

#### SUBMISSION BY THE DEPARTMENT OF TRANSPORT

The Department of Transport has been requested to submit a statement on the following matter raised in the Auditor-General's 1978-79 Report:

#### Paragraph 2.21.3 - Ultra Large Fire Tenders

"In June 1977, the Acting Minister for Transport approved the purchase of 10 Ultra Large Fire Tenders of 6800 litres water capacity at an estimated cost of \$1 456 860. Subsequently in March 1979, approval was given to purchase an additional 6 machines at an estimated cost of \$1 039 868. The first 10 units were delivered ex New York during the period May 1978 to July 1978.

Functions required of this type of equipment are to respond to a crash fire quickly, to extinguish fire on or around a burning aircraft and to conduct rescue operations.

Audit reviews during 1978-79 in the Queensland regional office of the Department disclosed:

- to 30 June 1979, 27 defects in the fire tenders attributable to faulty material, workmanship or design had been discovered in that region or advised by the Central Office of the Department;
- complete plans and drawings of the tenders were not available in the region when the units were first received;
- departmental records at 30 June 1979 disclosed that 4854 manhours had been expended in Queensland to effect modifications, correct faults and to perform limited maintenance on 3 of the tenders. Total costs incurred to that time amounted to \$47 244;
- the Department's Central Office advised in June 1978 that technical manuals would be distributed as soon as received. They were received on 6 April 1979 and subsequently distributed.

Audit examination of departmental records in Victoria disclosed that as at 31 May 1979 the 9 tenders commissioned in the various regions between October 1978 and January 1979 had been out of service for a total of 447 days. The other tender

which was delivered to the Canberra Airport on 10 October 1978 had not been commissioned at 30 June 1979."

#### Background

2. The Department has a continuing program to upgrade airport fire fighting facilities consistent with its policy of meeting International Civil Aviation Organisation guidelines. Fire services are currently operated at 31 airports, and while the I.C.A.O. guidance suggestions are met at international airports, there are other locations where some additional capacity is required to attain the recommended standard of facility. A five year fire vehicle purchasing program was approved in 1977 to upgrade facilities to meet I.C.A.O. recommendations and to replace obsolescent vehicles. Initial action following the invitation of public tenders was the placement of an order for 10 Ultra Large Fire Tenders with the Walter Motor Truck Company, New York, U.S.A.

3. The Department accepted this tender on the basis that no suitable Australian-made vehicle was offered, and the Walter vehicle was the only one capable of meeting the required specifications.

#### Commissioning of Vehicles

4. The information contained in the Auditor-General's Report is substantially correct. However, the Canberra vehicle was commissioned on 29 June 1979, whereas the Report said it had not been commissioned at 30 June 1979.

5. Mechanical problems have been experienced with the tenders in service, including a number of failures of the power divider and the premature wear of brake-linings. Under the terms of the contract, the manufacturer provides replacement parts and back-up service, and has re-designed, manufactured and supplied certain components at no cost to the Department with normal warranty arrangements in contracts of this nature.

6. The Company arranged for senior management and specialists to visit Australia to investigate operating problems. Those investigations have been completed and the results are now being assessed by the Company in New York.

7. The Department considers that some problems are due to unsatisfactory quality control in manufacture. The Walter Co. has been advised of this, and following an assurance that quality control would be improved, the Department has sought specific advice as to how the Company proposes to achieve the required improvements.

8. Mention was made in the Report of delays in providing technical manuals and plans. The initial issue of the documents (2 copies) was airfreighted to Australia, but unfortunately contained a substantial number of deficiencies and therefore had to be returned. The revised replacement manuals were delayed in transit from the U.S.A.

#### Conclusion

9. The Department selected the only tender capable of meeting the specifications, and considers that these fire tenders are the most suitable for Australian conditions. The basic design of the equipment is satisfactory and will ensure that the fire tenders meet all expectations for future utilisation. It is unfortunate that mechanical problems experienced in the initial stages of operation have resulted in the vehicles being out of service for substantial periods. As stated, it is suspected that inferior quality control may be the major contributing factor. Nevertheless, the manufacturer has demonstrated a genuine resolve to rectify these problems and to ensure that deficiencies are eliminated.

10. The problems experienced in the initial 10 units have now been largely overcome, and although some power dividers have not failed, they will be replaced in the near future.

11. A further six 6800 litre Ultra Large Fire Tenders have been purchased from the Walter Motor Truck Company subsequent to the initial order. Delivery has been effected, and they are being placed into service only after the Department is satisfied that all current problems have been resolved by the manufacturer.

Submitted to the Public Accounts Committee  
7 November 1979

## APPENDIX 2

### INQUIRY INTO THE AUDITOR-GENERAL'S REPORT 1978/79

#### BACKGROUND STATEMENT ON PURCHASE OF WALTER FIRE TRUCKS

##### 1. Service Requirement

The principal objective of a fire fighting and rescue service is to save lives in the event of an aircraft accident. The service must assume that a need to control or extinguish fire will exist since statistically fire occurs at 60-65% of all accidents. Fires usually start within 2 to 8 seconds, and the skin of a modern aircraft when in contact with fire cannot be relied upon to protect the interior for longer than 4 minutes. With the advent of very large aircraft, the hundreds of passengers involved, and the enormous quantities of fuel carried, rescue operations are time consuming and the effect of uncontrolled fire will be potential disaster. Success will depend upon the effectiveness of the equipment and the speed with which it can be put to use. Recognising this, the International Civil Aviation Organisation (I.C.A.O.) with its 145 member States has established guidelines for the provision of these services. To cater for the substantially expanded requirements in the late 1960s and 1970s by comparison with the 1950s and early 1960s ICAO revised its guidelines so as to cater for the large aircraft, the increased quantities in fuel carried and the longer runways. In the light of these developments Australia drew up a new specification based upon the new guidelines and its accumulated experience in local conditions.

##### 2. The Australian Requirement

The Australian Department of Transport adopts these ICAO requirements when specifying its vehicle characteristics.

Australia does not have unlimited resources and therefore careful planning, aimed at obtaining the highest practicable manpower and vehicle deployment efficiency has been a historic feature of the service. Australia maintains a force of professional firemen at 29 airports, whereas many ICAO member States base their fire services on part time and volunteer staff.

##### 3. The Need for New Fire Tenders

The fire tender fleet of the late 1960s was largely based on vehicles designed and built over the previous decade. These vehicles met the needs of relatively small aircraft with passenger loadings of up to one hundred people (eg DC3, Viscount, Convairs, DC6's, Super Constellation, D.H. Comet 4). With the introduction of larger aircraft with greater fuel capacities, requiring physically bigger airports, the vehicle response times, resulting from the speed and performance of the existing fleet, and their discharge rates, would not meet the requirements of new generation aircraft (Boeing 707, 727,

747 (Jumbo), DC9, DC10 etc.): production of the vehicles themselves ceased in the 1960s and component parts became increasingly difficult to obtain.

In 1971 an ICAO Rescue and Fire Fighting Panel, in which Australia participated, commenced a review of world-wide aircraft rescue and fire fighting experience, which in due course led to revised guidance material on vehicle design characteristics and other aspects of rescue and fire fighting services.

##### 4. Development of the Specification - WSFE 7500

Continuing study of the needs of Australian airports was made, and from this it was established that the most efficient service would be derived if two sizes of major appliance, viz. 6,800 and 9,100 litres of water capacity, formed its basis. Fire fighting foam (a mixture of air, water, and foam concentrate) discharge rates are set down in the ICAO recommendations, as are guidelines for vehicle acceleration, top speed, tyre pressures, cross country performance, and the desirable pump-roll facility: these were reproduced in the Specification. Engineers within the Department were encouraged to call for the inclusion of further available proven refinements, and widely discussed several possibilities with those companies representing the forefront of industry in this field. The result was a call for a rear single engine configuration, low unsprung weight, low overall weight, straightforward controls, good road holding, and simplicity in vehicle operation. All of these aspects were aimed at providing a vehicle of the best available performance and simple operation on the fire ground.

##### 5. Pump-roll Facility and Power Dividers

The pump roll facility is now regarded as essential as it immeasurably enhances the vehicle's capability when attacking today's extremely large aircraft: it provides greatly improved fire ground manoeuvrability. Such a facility can be provided in several ways, but the most efficient in terms of today's engineering knowhow is by use of a "power divider". The concept is not new and it was first introduced into airport fire service vehicles some 7 years ago. It is simple, versatile and easy to operate. It reduces vehicle weight, size and complexity, and puts no unnecessary strain on driveline components.

#### 6. The Tenders Submitted

Eleven companies submitted some twenty basic proposals; further options and design variations were also included. Tenders were received from companies in Australia, France, New Zealand, United Kingdom and United States. Close examination revealed that the only manufacturer who made offers which fully met the specifications was the Walter Motor Truck Co. The version of this firm's offer which was powered by the General Motors engine was the lowest-priced technically acceptable machine. Ten of these units were therefore ordered.

#### 7. Acceptance Testing

In accordance with the contract two Departmental Officers subjected the first production model to extensive tests against the requirements of the contract (including the specifications). The two officers arrived at the manufacturer's premises on 31 January 1978. The vehicle was however not ready for testing due to late delivery of some components from sub-contractors. Testing commenced three weeks later and at the conclusion the vehicle met all requirements with the exception of ease of control in the pump/role mode and some easily remedied minor items. A formal variation to the contract was raised authorising redesign of delivery in Australia. This was done and it was tested on satisfactory. Subsequent production units were tested by the manufacturer in accordance with an agreed test schedule. The completed test schedules were supplied to the Department and showed that all units met the tests.

#### 8. The Faults

When delivered and operated, these machines developed a number of faults. Some faults were accepted and dealt with as normal warranty problems, however ten fault types required minor modifications to all vehicles, whilst sixteen fault types required some vehicle design upgrade on all vehicles. Of the sixteen latter design exercises thirteen were associated with the power divider unit.

#### 9. The Commonwealth Auditor-General's Report

The 27 defects referred to are detailed in a letter from the Queensland Branch of the Auditor-General's report. Of these defects,

9 can be regarded as arising from "normal" warranty demands and result from manufacturing and/or material defects not discovered during assembly

5 were defects, covered by warranty, which generated minor vehicle modifications

11 were defects, covered by the Walter Motor Truck Company without question, which resulted in vehicle design development modifications

(2 defects on the list were duplicate).

It must be said that early serviceability of the vehicles was not as desired; however with a complex machine such as this it is not unreasonable to expect teething problems. The Walter Motor Truck Company has often voluntarily gone beyond the bounds of its warranty obligations, and Departmental confidence in the vehicles has been maintained. This is exemplified by the ordering of a further 6 6800 litre trucks.

The Auditor-General's comments regarding technical manuals, plans and drawings are noted. Whilst the final manuals (which continue to be revised from time to time) were not available until April 1979, interim manuals, although incomplete, were of recognisable and significant usefulness and were provided soon after the arrival of the machines. The specification called for general assembly and sub-assembly requirement); in the event, the Walter Motor Truck Company also obliged with a complete set of detail drawings covering all Walter components - these were a most welcome bonus for Departmental engineers.

#### 10. Australian Content/Offsets

In accordance with government policy, the Walter Motor Truck Company undertook to explore the possibility of Australian participation. This has been realised in a subsequent contract for the supply of nine 9,100 litre machines designed on the same concept.

18 March 1980  
Department of Transport

APPENDIX 4

DEPARTMENT OF ADMINISTRATIVE SERVICES

Purchasing Division

76/475  
76/229

9th Floor  
North Tower  
CAGA Centre  
Akuna Street  
CANBERRA ACT 2600

COMMONWEALTH PURCHASING CIRCULAR 77/4

Specifications for Inspection and Quality Assurance

Purchasing Officers in Commonwealth Departments and Authorities should be aware that the Parliamentary Joint Committee on Public Accounts in its 157th Report criticised the drafting of certain contract specifications. The Committee specifically asked that the attention of Departments whose contracts are subject to pre-acceptance tests or inspections by the Army Quality Assurance Service, be drawn to the need to ensure that specifications state quite clearly the technical and quality requirements of the units being manufactured under each contract.

2. The point made by the Joint Committee is of general relevance to Government purchasing irrespective of whether or not a contract entered into by a Department requires specially manufactured items or a specific quality assurance/inspection body. Unless specifications are drafted with the objective of defining the requirement technically for users, suppliers and testing authorities as well as detailing precisely the quality assurance standards required (including the deviations permitted), expenditure on pre-acceptance inspection will not produce maximum returns from inspection costs incurred.

3. The Joint Committee also sought to emphasise to Commonwealth purchasing authorities the importance of the principle enunciated in its 137th Report on development contracts. That principle required that, in Commonwealth contracts with a developmental content that requires production of a prototype unit, the prototype should be subjected to exhaustive testing, to prove that the unit is fully capable of performing the tasks for which the units are being procured, before authority is given for the rest of the production to proceed.

(G.A. LOW)  
FIRST ASSISTANT SECRETARY

30 November 1977

APPENDIX 3

HOUSE OF REPRESENTATIVES - QUESTIONS ON NOTICE TO THE  
MINISTER FOR TRANSPORT, FEBRUARY 1979 TO 4 DECEMBER 1980

<u>Subject</u>	<u>Question Number</u>	<u>Date Asked</u>	<u>Date Answered</u>
Fire Tenders	3313	1.2.79	3.4.79
Airport Fire Tenders	3735	2.5.79	29.4.79
Airport Fire Tenders	3736	2.5.79	4.6.79
Rescue and Fire			
Fighting Service	3926	10.5.79	28.5.79
Airport Fire Tenders	4165	5.6.79	11.9.79
Airport Fire Tenders	4166	5.6.79	11.9.79
Airport Fire Tenders	4167	5.6.79	11.9.79
Walter Fire Tenders	4936	17.10.79	5.11.79
Fire Tender Spare			
Parts	4943	17.10.79	21.2.80
Fire Tender Spares	5144	21.11.79	21.2.80
Fire Tenders	5147	21.11.79	4.3.80
Department of Transport:			
Mr W. Harris	5148	22.11.79	21.2.80
Airport Fire Tenders	5149	21.11.79	1.4.80
Airport Fire Tenders	5599	5.3.80	19.8.80
Fire Tenders	5686	20.3.80	21.4.80
Steel Castings for			
Fire Tenders	5885	15.4.80	22.5.80
Airport Fire Tenders	291	4.12.80	24.2.81



WALTER MOTOR TRUCK COMPANY

APPENDIX 5

Statement

With respect to the Auditor-General's 1978-79 Report and the Submission in response thereto by the Department of Transport, we take exception to characterizing the "de-bugging" process as "... defects in the fire tenders attributable to faulty material, workmanship or design ..." (12-Para, 2.21.3 Sub Para 4)

We have thoroughly investigated the operating problems referred to and subsequent breakdowns, and have concluded that, by training and usage prescribed by the DOT Fire Service, the units were subjected to rigors and stress not anticipated, thus exposing "weak links" unknown to exist.

Walter, as an international CFR manufacturer and supplier brings great expertise to its designs as the result of its experience in combination with the input of user organizations.

To the credit of DOT we point out that a standard of training has been established to a level not matched anywhere in the world. However, the specification for the hardware used in the exercises does not reflect the standard of the rigors and high stress level to which the appliances are subject. All references to quality control must be understood in the context of the above statement.

Conclusion:

We emphatically reject the notion that inferior quality control is the major contributing factor in the experiencing of operating problems.

We submit, rather, that our understanding of DOT usage and adherence to our operating recommendations will reflect the smooth operational performance such vehicles should provide.

Attached to correspondence to the Public Accounts Committee from Jerome R. McDougal dated February 27, 1980

DEPARTMENT OF TRANSPORT, FIRE APPLIANCE PURCHASES SINCE 1965

QUANTITY AND TYPE OF APPLIANCE	ORDER NO.	DATE	CONTRACTOR	TOTAL TOTAL VALUE (\$ AUST.)	COUNTRY OF MANUFACTURE
1 2 No. Ultra Large Water Tenders	H27359	7. 3.66	Wormald Bros. (Aust) Pty. Ltd	102,286	Australia
2 6 No. Medium Fire Tenders	H23280	26.5.66	WCB Industries	112,149	Australia
3 8 No. Medium Fire Tenders	H00713	17.7.67	WCB Industries	162,144	Australia
4 2 No. Ultra Large Water Tenders	H05936	21.10.68	Wormald Bros. (Aust) Pty. Ltd.	117,278	Australia
5 2 No. Ultra Large Fire Tenders Mk 1	H06981	11.9.69	Wormald Bros. (Aust) Pty. Ltd.	149,550	Australia
6 1 No. Medium Rescue Tender	H06981	18.9.69	Presha Engineering Pty. Ltd.	32,850	Australia
7 5 No. Medium Fire Tenders	H09056	10.10.69	FFE Group Ltd	127,830	Australia
8 4 No. Ultra Large Fire Tenders Mk 2	H09923	5.1.70	Steco Industries Pty. Ltd.	290,511.65	UK
9 3 No. Medium Rescue Tenders	H08793/1	28.4.70	FFE Group Ltd.	101,245	Australia
10 4 No. Ultra Large Fire Tenders Mk. 2	H13674	4.1.71	Steco Industries Pty. Ltd.	290,511.65	UK
11 8 No. Foam Trailers	H13988	12.5.71	Presha Engineering	29,635	Australia
12 4 No. Foam Trailers	H18046	30.5.72	Presha Engineering	14,896	Australia
13 10 No. Foam Trailers	H28484	9.7.75	Comeng Aresco	49,190	Australia
14 10 No. Ultra Large Fire Tenders Mk. 3	H33855	29.6.77	Walter Motor Truck Co.	1,366,860	USA
15 9 No. Ultra Large Fire Tenders Mk. 4	H38251	30.11.78	Walter Motor Truck Co.	1,879,360.20	USA/Aust.
16 6 No. Ultra Large Fire Tenders Mk. 3	H39318	28.3.79	Walter Motor Truck Co.	989,868	USA

APPENDIX 6

SOURCE: Department of Transport memo. of 30 May 1980

#### APPENDIX 7

##### ULTRA LARGE FIRE TENDERS - PURCHASE PROGRAM 1972-1975

##### Unsuccessful Contract, Deveson Jahn (Australasia) Pty Ltd

At page 263 of the Minutes of Evidence (hearing of 18 March 1980) reference was made to a previous tender for Ultra Large Fire Tenders and placing of an order (which was subsequently cancelled) with Deveson Jahn (Australasia) Pty Ltd contracting for vehicles produced by the Walter Motor Truck Company.

The Department was asked whether the specification for that tender differed significantly from Specification WSFE 7500 of September 1975 and if so, in what way.

It replied that two specifications were used for the previous tender action - DCA/E/2882 and 2883, issued January 1972.

Specification DCA/E/2882 detailed chassis requirements and specification DCA/E/2883 detailed requirements for the complete vehicle with chassis in accordance with 2882.

Three types of vehicle were described

- (a) Ultra Large Fire Tender Mk 3
- (b) Ultra Large Fire Tender Mk 3A
  - similar to Mk 3 above but with reduced water and having the additional facility of dry powder equipment
- (c) Ultra Large Water Tender Mk 3 having no foam
  - making facilities but having a larger water tank than specified for Mk 3 above.

Specification WSFE 7500 was prepared following further study of requirements, including recommendations of the International Civil Aviation Organisation (ICAO). After examination of the Rescue and Fire Fighting Panel II (RFFP II) and of National Fire Protection Association (NFPA) Sectional Committee's views on Aircraft Rescue and Fire Fighting, it was determined that there was no future requirement for type (b) and (c) vehicles.

Significant changes to specification requirements were:

- (a) Acceleration requirement changed from 50 seconds max (0-50 mph) to 45 seconds max (0-80 kph)
  - to meet ICAO and revised NFPA acceleration
- (b) Minimum top speed of 55 mph replaced by "Desirable top speed 100 kmph"
  - to meet revised ICAO recommendation

- (c) Stopping distance from 20 mph was relaxed from 27 feet (8.5 m) to 12 m (40 ft)
  - to accord with ICAO recommended distance and because 12 m was normal Australian industry standard
- (d) Minimum Gradeability was relaxed from 50% to 40%
  - lesser requirement was considered to be adequate
- (e) Hand Brake holding requirement on 50% gradient relaxed to 40%
  - as consequence of (d) above
- (f) Chassis description changed, deleting reference to 6 x 6 and other specific aspects, to general description of requirements of high performance cross-country chassis
  - former description was unnecessarily restrictive and inferred "blanket" preference for configuration was not sustainable
- (g) A preference for rear-mounted engine was stated
  - pronounced world-wide trend to rear engine units with many advantages in design, operation and maintenance
- (h) Several detail changes to pump and delivery arrangements and capacities
  - due to changes in ICAO recommendations, fire fighting technique and adoption of improved foam compound (AFFF)
- (i) Test requirements stated in general terms rather than list of tests at specification stage
  - considered more appropriate to determine test programme according to the specific vehicle being assessed.

The Department of Transport advised that the order placed with Deveson Jahn (Australasia) Pty Ltd on 5 April 1972 was cancelled on 20 November 1975. No contract was made directly with the Walter Motor Truck Company because of the contractual difficulties being experienced with Deveson Jahn (Australasia) Pty Ltd.

The Department indicated that it was not aware if the Walter Company had commenced developing or producing vehicles in respect to the order placed with Deveson Jahn (Australasia) Pty Ltd at the time that order was cancelled. It advised that actual production of vehicles had not commenced.

SOURCE: Department of Transport memo, of 22 August 1980

## APPENDIX 8

TENDER SCHEDULE C2/75/191

### NOTES ON AUSTRALIAN INDUSTRY PARTICIPATION IN OVERSEAS PROCUREMENT

#### INTRODUCTION:

Final selection of a contractor for an equipment requirement is based largely on concurrent consideration of

- equipment performances
- product support arrangements  
i.e. supply and engineering support
- price and delivery arrangements
- Australian industry participation.

2. The weight given to each of these factors varies with the operational significance of the equipment.

#### AUSTRALIAN INDUSTRY PARTICIPATION (AIP):

3. The Australian Government has determined that for all major purchases from overseas sources, opportunities for AIP will be sought from prospective suppliers. This applies to purchases by Departments, Statutory Authorities, or in any area where there is Government involvement in purchasing decisions (for example in the purchase of large civil aircraft).

4. Overseas suppliers are requested to submit proposals for AIP up to a substantial proportion of the order. The willingness of the overseas suppliers to enter into such arrangements and the technical worth and financial value of their proposals may be significant factors in deciding the award of the order.

#### OBJECTIVES:

5. The objective of the programme, within the constraints of practicability and cost, is to secure workload which will:-

- stimulate technological advancement in key Australian industries; and
- broaden the capabilities of industries of strategic significance to Australia in order to provide in depth defence supply capability.

6. In general, those tasks will be preferred which have some or all of the following characteristics. They would:-

- be likely to stimulate continuing activity in the same field of technology;
- involve transfer of technology in areas of significance to Australian industrial development or defence;
- exercise Australian design and development resources; and
- provide workload for underutilised sectors of Australian industry of technological significance.

#### TYPES OF PROPOSAL:

7. Proposals for AIP can take many forms. Prospective suppliers are required to determine the structure and contents of their proposals in the light of the guidelines set out in this document, discussions with nominated Australian Government Authorities, their own surveys of the current capabilities of Australian industries and any special provisions in the tender. The following are intended to indicate some possible types of proposals:-

- The overseas contractor could arrange for the manufacture in Australia of certain of the assemblies, sub-assemblies or parts of the equipments being procured by Australia. This is often referred to as a "part-production" arrangement. Such an arrangement could be extended to the manufacture in Australia of additional quantities of these or other types of equipment for sale to other customers of the overseas contractors; a type of "co-production" arrangement.
- A collaborative proposal is sometimes practicable and this could involve the overseas prime contractor in making arrangements for the Australian industry to participate through the conceptual, design, development and production stages.
- Another type of arrangement involves the overseas contractor in an undertaking to purchase Australian products of technological significance to Australia.

#### CONTENT OF PROPOSALS:

8. Proposals submitted in response to invitations to tender should be clearly defined, demonstrably viable, normally competitive with overseas prices and deliveries and should:-

- . state the nature of the Australian industry participation;
- . define penalties in cost and time resulting from Australian participation proposals. Where options to increase the degree of this participation are included in the proposal, the penalties should be shown for each option. Premiums will not be considered unless there is some clearly defined compensating return;
- . state the proportion in terms of man hours and value and the types of work which will be directed to Australian industry;
- . state the time period (months/years) over which Australian participation commitments are to be achieved; and
- . give an assurance that, should any industry participation proposals submitted with a tender prove impracticable, further proposals will continue to be submitted until the agreed level of participation has been achieved.

#### MANAGEMENT RESPONSIBILITY AND COST:

9. The supplier will be required to accept management responsibility for the implementation of Australian participation commitments and the Commonwealth will not pay additional costs arising from such participation unless the contrary has been agreed in writing prior to award of contract.

#### PURCHASES:

10. Suppliers of equipment are required to report quarterly to the Department of Manufacturing Industry (address below) on the progress of implementation of Australian participation commitments. Reports should include details of opportunities offered to Australian companies and contracts concluded.

#### ASSISTANCE TO TENDERERS:

11. A Secretariat located in the Department of Manufacturing Industry offers general information and advice

and maintains a record of capabilities of Australian companies interested in working with overseas suppliers. The Secretariat can be contacted at the following address:-

Address: The Director,  
Australian Industry Participation,  
Department of Manufacturing Industry,  
Constitution Avenue,  
CANBERRA. A.C.T.

Phone: (062) 482726

APPENDIX 9

CONTRACT DELAYS - TENDER SCHEDULE C2/75/191

- 26.11.75 Tender Schedule C2/75/191 advertised; closing 27.1.76
6. 2.76\* Tenders scheduled and submitted to technical branches for evaluation.
1. 7.76 Request from technical branches that revalidated offers be obtained from "short list" Companies.
4. 8.76 Letters to five (5) Companies seeking revalidated prices and revised delivery schedule (closing 31.8.76).
9. 9.76 Revalidated offers forwarded to technical branches for further technical assessment.
- 19.11.76 At meeting of departmental representatives, requirement re-assessed; proposed to recommend purchase of 10 x 6800 litre appliances at this stage.
- 31.12.76 Offer of Walter Motor Truck Co. considered lowest priced technically acceptable offer; contractual considerations examined in detail.
17. 2.77 Technical recommendation made in favour of Walter offer.
10. 3.77 Letter requesting revalidation for reduced quantity of 10 No. appliances forwarded to Walter Motor Truck Co.
6. 4.77 Revalidated offer received.
18. 4.77 Revalidated offer forwarded for technical assessment.
12. 5.77 Offer from Walter recommended for acceptance.

\* "After scheduling, tenders were submitted to the technical branches for evaluation, assessment and identification of a 'short list' of technically suitable offers. This involved detailed analysis of the tenders and alternatives and discussions with tenderers to obtain supplementary technical and other details. That this process occupied some 5 months is not unusual, considering the complex nature of this tender."

14. 6.77 Central Contract Board approved purchase of Walter vehicle.

24. 6.77 Ministerial concurrence obtained.

29. 6.77 Telex to Walter advising acceptance of Company's offer.

SOURCE: Department of Transport memo. of 10 April 1980.

APPENDIX 10

WALTER MOTOR TRUCK COMPANY

STATEMENT REGARDING AUSTRALIAN INDUSTRY  
PARTICIPATION IN OVERSEAS PROCUREMENT

The Walter Motor Truck Company fully understands the needs and objectives of the Australian Industry Participation Program and hereby agrees to cooperate to the fullest extent practicable.

The time frame between receipt of tender documents and tender opening date did not permit time required to investigate Australian sources of supply and offer any significant Australian industry participation in our proposal submitted herewith. We do note the requirement for special equipment in the specifications such as mirrors, horn, fittings, etc. which are of Australian manufacture, and will be procured in Australia.

If we are favored with the award, we will cooperate with the Director, Australian Industry Participation and the manufacturers in Australia, in an effort to include in the finished articles as high a degree of Australian manufactured components as is possible. Obviously, prime factors for consideration in this endeavor would be quality, delivery and cost.

The vehicles we propose to furnish will not be the result of a special development; they will be standard vehicles that Walter Motor Truck Company has had in continuous production for many years. Consequently, virtually all components are standard and currently being procured from standard sources. Any changes in our standard vehicle will be relatively minor and will constitute primarily modifications to the fire fighting system in order to meet the specific requirements of your specifications.

In addition to assurances given above concerning our understanding and intentions regarding the AIP Program, please refer to our statements made with regard to spare parts availability for provisioning and continuing service to vehicles furnished. Again, if favored with the award, we will have time to investigate Australian industry sources for these materials and will work closely with the Australian Agent as well as the Director of AIP toward maximizing to the greatest extent possible the Australian content in these appliances.

SOURCE: VOL. IV, Proposal from Walter Motor Truck Company, 26 January 1976.

REVALIDATED PRICES & DELIVERY SCHEDULES AS AT AUGUST 1976 - OFFSET ARRANGEMENTS  
AUSTRALIAN CONTENT & SERVICE AND SPARES SUPPORT

Company	Delivery as at August 1976	Revaluated Prices (comparative costs)	Offset Proposals	Australian Content	Service & Spares Support Offered	Remarks
1. Chubb Fire Vehicles U.K.	Commence Oct '77 at rate 2 per mth.	\$171,514.76	Nil	Nil	Number of fast moving spare parts stocked by Pyrene Aust. in Melbourne	Includes duty 22-1/2% & est. freight \$7,500. Valid for acceptance until 31.10.76
2. Normald International (Aust.) P/L.	Commence Sept '77 at rate 1 per working month. (Providing order received by 1 November '76)	(a) \$175,456 RFW chassis - rear engine (b) \$177,156 RFW chassis - front engine. (c) \$163,778 Amco chassis - front engine.	N/A	Not specifically stated; high Aust. content; actual % dependent on optional items selected.	Normalds would carry limited spares to support units in the field.	Prices for basic units as offered; based on no progress payments. Alternative monitor, nozzles, foam proportioning systems offered - see tender. Prices variable; valid until 30.11.76
3. Walter Motor Truck Co. U.S.A.	5 units by 31 July 1977 further 5 no. by 30 Sept. 1977 any additional qty. 3 per mth thereafter.	(a) \$145,799.45 (Cummins engine) (b) \$143,340.87 (GM engine)	See Appendix 10	Nil	Co. to establish Aust. dealer for purpose of inventorying spare parts and providing service.	Prices include duty 22-1/2% and est. freight \$6,000; prices firm; valid until 30.11.76

APPENDIX 11

4. Presha Engineering Aust	As requested i.e. 8-10 no. during 7/78, balance 78/79 Originally offered 1st unit 27 weeks then 1 unit every 6 weeks.	(a) \$169,049 RFW chassis - front engine (b) \$171,049 RFW chassis - rear engine.	N/A	90%	Spare parts for all fitted expt. to be held by Presha; chassis spares to be held by RFW	Prices variable, valid until 30.11.76. Testing not included.
5. Oshkosh Inc. U.S.A.	1st unit ex USA 15 April 1977; then 4 units per month.	\$146,246.32	See below*	Nil	Engine & transmission parts available from mfrs. - Cummins Other spares from Oshkosh USA & possibly through RAAF which has identical vehicles.	Price includes Duty 22-1/2% & est. freight \$6,500; valid until 30.11.76 Price firm.
LATE TENDER						

SOURCE: Department of Transport memo. of 22 August 1980

\* OFFSET PROPOSAL - OSHKOSH

H. STATEMENT OF AUSTRALIAN CONTENT

The vehicle as offered contains no components of Australian manufacture. Oshkosh International is prepared to explore any practical possibilities that may exist for inclusion of Australian made items on the vehicle.

The company suggests exploring such possibilities at the Tender Conference.

APPENDIX 12

UPDATED OFFER REQUESTED FROM FIVE SHORT LISTED  
TENDERERS

DEPARTMENT OF TRANSPORT

6992333

Contract Administrator  
Oshkosh International Inc.,  
2307 Oregon Street,  
Oshkosh  
WISCONSIN USA 54301

4 AUGUST 1976  
5/75/191

Dear Sir,

Reference is made to your offer for supply of Ultra Large Fire Appliances submitted against Tender Schedule C2/75/191 which closed on 27 January 1976.

Due to the prevailing budgetary conditions the Department has been unable to proceed with purchase of the required appliances to date and the validity of your offer has now expired.

It has now been ascertained, however, that funds for these appliances will be provided in future fiscal years and based on the information currently available it would be considered preferable if delivery could be effected to enable payment for 8-10 appliances during 1977/78 and the balance in 1978/79. It is proposed that 18-22 appliances will be purchased.

You are accordingly invited to submit an updated offer for the appliances originally tendered based on

(a) delivery as requested above, if possible (your proposed delivery schedule to be provided) and

(b) best delivery that can be offered.

Your offer should be valid for acceptance for a period of at least 90 days from the closing date specified herein.

All other terms and conditions of Tender Schedule C2/75/191 shall apply and any variations or exclusions may prejudice consideration of any offer.

Your updated offer enclosed in a sealed envelope endorsed "Schedule C2/75/91A" is to be submitted to the Secretary, Central Contract Board, Department of Transport, 20-22 Albert Road, South Melbourne, 3205, Victoria, Australia, so as to reach that office no later than 2 p.m. Australia Eastern Standard Time on Tuesday 31 August 1976.

Yours faithfully,

(L. REBESCHINI)  
for First Assistant Secretary  
(Finance and Commercial)

Copy for:

Australian Consul-General,  
Australian Consulate-General,  
636 Fifth Avenue,  
NEW YORK, 20 N.Y. USA



DEPARTMENT OF TRANSPORT

6992333

Vice-President, Marketing and Sales,  
Walter Motor Truck Company,  
School Road,  
VOORHEESVILLE, NEW YORK  
12186 USA

4 AUGUST 1976  
5/75/191

Dear Sir,

Reference is made to your offer for supply of Ultra Large Fire Appliances submitted against Tender Schedule C2/75/191 which closed on 27 January 1976.

Due to the prevailing budgetary conditions the Department has been unable to proceed with purchase of the required appliances to date and the validity of your offer has now expired.

It has now been ascertained, however, that funds for these appliances will be provided in future fiscal years and based on the information currently available it would be considered preferable if delivery could be effected to enable payment for 8-10 appliances during 1977/78 and the balance in 1978/79. It is proposed that 18-22 appliances will be purchased.

You are accordingly invited to submit an updated offer for the options 3 and 4 tendered against the original schedule, which are preferred to the other appliances tendered by your company.

It would be appreciated if your offers could be based on:

- (a) delivery as requested above, if possible (your proposed delivery schedule to be provided) and
- (b) best delivery that can be offered.

Your offer should be valid for acceptance for a period of at least 90 days from the closing date specified herein.

As a Government Department the Department of Transport does not enter into irrevocable letters of credit but would effect payment upon presentation of clean dock receipt for each vehicle as delivered. Your confirmation of acceptance of these terms of payment would be appreciated.

All other terms and conditions of Tender Schedule C2/75/191 shall apply and any variations or exclusions may prejudice consideration of any offer.

Your updated offer enclosed in a sealed envelope endorsed "Schedule C2/75/91A" is to be submitted to the Secretary, Central Contract Board, Department of Transport, 20-22 Albert Road, South Melbourne, 3205, Victoria, Australia, so as to reach that office no later than 2 p.m. Australia Eastern Standard Time on Tuesday 31 August 1976.

Yours faithfully,

(L. REBESCHINI)  
for First Assistant Secretary  
(Finance and Commercial)

Copy for:

Australian Consul-General,  
Australian Consulate-General,  
636 Fifth Avenue,  
NEW YORK, 20 N.Y. USA

DEPARTMENT OF TRANSPORT

6992333

The Sales Manager,  
Wormald International (Aust.) Ltd.,  
447-459 Williamstown Road,  
PORT MELBOURNE, VIC.

4 AUGUST 1976  
5/75/191

Dear Sir,

Reference is made to your offer for supply of Ultra Large Fire Appliances submitted against Tender Schedule C2/75/191 which closed on 27 January 1976.

Due to the prevailing budgetary conditions the Department has been unable to proceed with purchase of the required appliances to date and the validity of your offer has now expired.

It has now been ascertained, however, that funds for these appliances will be provided in future fiscal years and based on the information currently available it would be considered preferable if delivery could be effected to enable payment for 8-10 appliances during 1977/78 and the balance in 1978/79. It is proposed that 18-22 appliances will be purchased.

You are accordingly invited to submit an updated offer for the appliances based on RFW chassis, with front and rear engines, and incorporating the Feecon monitor and hand nozzles and turbo-charged GM engine. These appliances incorporating the equipment specified above are preferred to any of the other appliances tendered by your company.

It would be appreciated if your offer could be based on:

- (a) delivery as requested above, if possible (your proposed delivery schedule to be provided) and
- (b) best delivery that can be offered.

Your offer should be valid for acceptance for a period of at least 90 days from the closing date specified herein.

It is noted that progress payments were specified in your original offer. As you are aware it is not normal departmental policy to make progress payments against

contracts and you are therefore requested to submit your updated offers on the basis of both

- (a) payment to be made after delivery and acceptance of each completed appliance and
- (b) progress payments required (details to be provided). Any progress payments made by the Department would need to be secured by a Bank Guarantee for an equivalent amount lodged by your company.

All other terms and conditions of Tender Schedule C2/75/191 shall apply and any variations or exclusions may prejudice consideration of any offer.

Your updated offer enclosed in a sealed envelope endorsed "Schedule C2/75/91A" is to be submitted to the Secretary, Central Contract Board, Department of Transport, 20-22 Albert Road, South Melbourne, 3205, Victoria, Australia, so as to reach that office no later than 2 p.m. Australia Eastern Standard Time on Tuesday 31 August 1976.

Yours faithfully,

(L. REBESCHINI)  
for First Assistant Secretary  
(Finance and Commercial)

DEPARTMENT OF TRANSPORT

6992333

The Manager,  
Presha Engineering Pty. Ltd.,  
44 Malvern Road,  
BAYSWATER, Vic. 3153

4 AUGUST 1976  
5/75/191

Dear Sir,

Reference is made to your offer for supply of Ultra Large Fire Appliances submitted against Tender Schedule C2/75/191 which closed on 27 January 1976.

Due to the prevailing budgetary conditions the Department has been unable to proceed with purchase of the required appliances to date and the validity of your offer has now expired.

It has now been ascertained, however, that funds for these appliances will be provided in future fiscal years and based on the information currently available it would be considered preferable if delivery could be effected to enable payment for 8-10 appliances during 1977/78 and the balance in 1978/79. It is proposed that 18-22 appliances will be purchased.

You are accordingly invited to submit an updated offer for the appliances originally tendered incorporating the GMV8-92T engine - front and rear - and the Godiva pumps which are preferred to the other alternatives offered by your company.

It would be appreciated if your offer could be based on:

- (a) delivery as requested above, if possible (your proposed delivery schedule to be provided) and
- (b) best delivery that can be offered.

Your offer should be valid for acceptance for a period of at least 90 days from the closing date specified herein.

It is noted that progress payments were specified in your original offer. As you are aware it is not normal departmental policy to make progress payments against contracts and you are therefore requested to submit your

updated offers on the basis of both

- (a) payment to be made after delivery and acceptance of each completed appliance and
- (b) progress payments required (details to be provided). Any progress payments made by the Department would need to be secured by a Bank Guarantee for an equivalent amount lodged by your company.

All other terms and conditions of Tender Schedule C2/75/191 shall apply and any variations or exclusions may prejudice consideration of any offer.

Your updated offer enclosed in a sealed envelope endorsed "Schedule C2/75/91A" is to be submitted to the Secretary, Central Contract Board, Department of Transport, 20-22 Albert Road, South Melbourne, 3205, Victoria, Australia, so as to reach that office no later than 2 p.m. Australia Eastern Standard Time on Tuesday 31 August 1976.

Yours faithfully,

(L. REBESCHINI)  
for First Assistant Secretary  
(Finance and Commercial)

DEPARTMENT OF TRANSPORT

6992333

The Sales Manager,  
Chubb Fire Security Ltd.,  
Pyrene House,  
Sunbury-on-Thames,  
MIDDLESEX, ENGLAND.

4 AUGUST 1976  
5/75/191

Dear Sir,

Reference is made to your offer for supply of Ultra Large Fire Appliances submitted against Tender Schedule C2/75/191 which closed on 27 January 1976.

Due to the prevailing budgetary conditions the Department has been unable to proceed with purchase of the required appliances to date and the validity of your offer has now expired.

It has now been ascertained, however, that funds for these appliances will be provided in future fiscal years and based on the information currently available it would be considered preferable if delivery could be effected to enable payment for 8-10 appliances during 1977/78 and the balance in 1978/79. It is proposed that 18-22 appliances will be purchased.

You are accordingly invited to submit an updated offer for the appliance originally tendered on an "Aquarius" chassis, which is preferred to the remaining appliances tendered by your company.

It would be appreciated if your offer could be based on:

- (a) delivery as requested above, if possible (your proposed delivery schedule to be provided) and
- (b) best delivery that can be offered.

Your offer should be valid for acceptance for a period of at least 90 days from the closing date specified herein.

All other terms and conditions of Tender Schedule C2/75/191 shall apply and any variations or exclusions may prejudice consideration of any offer.

Your updated offer enclosed in a sealed envelope endorsed "Schedule C2/75/91A" is to be submitted to the Secretary, Central Contract Board, Department of Transport, 20-22 Albert Road, South Melbourne, 3205, Victoria, Australia, so as to reach that office no later than 2 p.m. Australia Eastern Standard Time on Tuesday 31 August 1976.

Yours faithfully,

(L. REBESCHINI)  
for First Assistant Secretary  
(Finance and Commercial)

Copy for:

Official Secretary,  
Australian High Commission,  
Australia House,  
The Strand,  
LONDON UK WC2.

### APPENDIX 13

#### TESTING OF THE PROTOTYPE

In response to the Committee's request for a description of the tests carried out between 16 February and 8 March 1978 and the results of those tests, the Department of Transport provided the following information.

The inspection and testing carried out was in two integrated phases, the first being inspection of the manufacturing and assembly processes to ensure proper construction methods adopted followed by testing of the first unit to establish whether the finished product complied with the contract. We received total co-operation from the contractor and were satisfied with the results. The first phase can be summarised as a process of observing work in progress, examining drawings, materials and processes and discussing aspects with design and production engineers and floor staff. Many detail changes were made during this period aimed at optimising the final product from the operational and the engineering point of view.

The second phase comprised extensive testing of the finished product, and the main aspects are summarised as follows:

1. Throughout the testing complete vehicle was repeatedly inspected for general workmanship, security of fastenings, fouling of lines and wiring, system leaks, etc.
  - results satisfactory.
2. Tests and calibration to determine accuracy of test equipment.
3. Determine capacity of water and foam tanks and usable capacity at full pump discharge rate
  - complied with contract which called for a tank capacity of 6800 litres. At no extra cost team negotiated an increase in water capacity to units No. 5 onwards to give 6800 litre usable capacity, thus overcoming capacity lost through pipework, vehicle attitude, and pump cavitation.
4. Extensive pumping tests to establish discharge rates, foam agent usage rates and proportioning system accuracy for all combinations of deliveries, foam quality, monitor and hand line nozzle throw and pattern, accuracy of automatic pump pressure control systems, absence of cross flows water to foam and vice versa under all operating conditions, adequate excess pumps capacity margin,

"fool-proof" operation of controls, suitability of controls, layout of control panels and monitoring gauges and lights, protracted pumping tests, satisfactory engagement and control of pump-roll mode, effect of pump-roll on discharge, effectiveness of minor hydraulic assist and ease of operation without hydraulic assist

- results very satisfactory except pump-roll speed control too sensitive to accelerator position (subsequently rectified) and suction line to foam pump undersized creating high suction on pump (increased in size before testing completed and satisfactory).
5. Physical dimensions of vehicle including ground clearance, approach and departure angles, checked
    - satisfactory.
  6. All lighting checked for compliance with Australian regulations (colour, location, intensity), adequacy for night and day operations, including in cabin reflections, control locations
    - at no additional cost manufacturer added side turn lights, additional back-up floodlight, dimmer control to tank level lights, additional engine compartment lights
    - results very satisfactory and night lighting exceeded specification requirements.
  7. Cabin visibility for driver and passengers, adequacy and location of rear-vision mirrors
    - checked and satisfactory.
  8. Vehicle weight and weight distribution checks using certified weigh-bridge
    - results within acceptable tolerances and close to original estimates.
  9. Extensive vehicle handling trials conducted on sealed, concrete and secondary road surfaces to determine vehicle ride and handling characteristics, crew comfort and safety position of controls, general performance and gradeability cornering and braking characteristics, cabin noise levels, night and day visibility, heating/demisting system performance, check dust/waterproofing aspects
    - results very satisfactory, vehicle stable with good handling characteristics under all conditions, no brake fade, cab noise level very low.

10. Tests to determine transmission shift quality, shift points, operation of shift inhibitors, engine overspeed protection, operation of neutral only start function, stall tests

- results satisfactory.

11. Repetitive tests of acceleration, speed runs, braking from 80 kph to determine controllability and fade (no fade), stopping distance from 32 kph main brakes and using parking brake only, and steering ability with loss of power assist

- results very satisfactory, acceleration top speed and main braking capability exceeded specification.

12. Air system leakage rate tests

- air loss rate exceeded specification but results satisfactory because sealed master tank system ensured full braking capability even after prolonged standing.

13. Wall to wall turning circle tests both locks

- satisfactory after adjustment to equalise turning circles.

14. Articulation tests with 35 and 40 cm blocks under individual and diagonal wheels checking for clearance, fouling, leaks, undue distortion, operation of doors, controls, operation of all systems including pumping, valves, turret and vehicle drive

- results satisfactory, rear engine cover could not be opened in "twisted" condition but this was regarded as acceptable.

15. Equipment brackets and stowage checked for adequacy, security, simplicity of operation

- satisfactory.

16. Windscreen wipers and washers tested for adequacy, speed of operation, ease of control

- longer wiper blades fitted, speed control changed for easier driver operation, splarge bar system added to flood windscreen during fire ground operation, then fully satisfactory.

17. Operation of horn and of yelp/wail/P.A. system tested

- air horn control changed from chain valve to centre wheel horn button control then fully satisfactory.

SOURCE: Department of Transport memo of 30 May 1980

#### Cross-country testing

Because no cross-country tests were conducted during acceptance testing, the Committee asked the Department about subsequent tests and their results. It replied that initial cross-country tests were conducted in Melbourne at Essendon and Tullamarine Airports in August 1978, followed by extensive tests at each airport allocated a vehicle in conjunction with training and rating of Fire Service Staff.

Results were very satisfactory and confirmed the expected fast response time, high mobility and rough terrain capability of the vehicles.

SOURCE: Department of Transport memo of 22 August 1980

#### APPENDIX 14

##### DEFECTS - WALTER 6800 L

During the Inquiry the Committee sought detailed information and comment on the twenty-seven defects reported by the Auditor-General and an indication from the Department where it considered responsibility for these defects to lie.

The Department provided the following information:

The defects are outlined below. Similar defect types have been grouped together, then detailed in turn in the following format:

- (a) Defect No. and Description in Auditor-General's Office, Queensland Branch letter to Department of Transport, Queensland Regional Office, dated 24/7/79.
- (b) Departmental comment on defect and reason.
- (c) Departmental opinion on responsibility.

##### Details

#### 1. (a) Defect (1)

Transmission oil pump drive failure due to overload of drive. Later evidence indicated oil pressure relief valve stuck shut.

##### Defect (7)

Oil pressure relief valve on power divider defective in design. Susceptible to jamming when dirt in excess of 0.005" dia present in oil. Three jams occurred in Queensland with resultant failure of unit. Twice excessive pressure caused failure of oil pump drive. Third case lack of oil pressure prevented pumping action.

- (b) Defects (1) and (7) are of the same type and relate to an oil pressure/lubrication system associated with the power take-offs providing relatively low oil flows and pressures. The contractor used a system which had been satisfactory on other vehicles but which proved in this application to be sensitive to minute particles in the oil. The fault occurred on several vehicles. Contractor developed satisfactory modification and kits are being supplied under warranty.
- (c) Contractor responsibility.

#### 2. (a) Defect (2)

Internal suction hose to main clutch lubricating oil pump failed due to incorrect type of hose with inadequately designed coupling. Hose broke off; resultant lack of oil caused overheating and spoilage of clutch plates.

- (b) Unavailable hose clips were used during assembly and the clips cut into the hoses. Design was satisfactory if different end clips had been used. Departmental decision taken to change to Aeroquip type hose and end fittings on all vehicles. Contractor approved changes and incorporated improvement in subsequent vehicles.
- (c) Contractor responsibility.

#### 3. (a) Defect (3)

Transmission oil pressures failed while unit in pumping mode resulting in water and foam pump ceasing operation. Lack of oil return capacity caused oil reservoir to be emptied.

- (b) Return line marginally too small leading to pressure loss only after protracted pumping operations unlikely to occur in real fire situation (but which did occur during training). Line increased in size to ensure no further problems. Accepted by contractor and appropriate changes made to subsequent vehicles without price variation.
- (c) Contractor responsibility.

#### 4. (a) Defect (4)

On initial removal of rear wheel nuts thread stripping occurred due to swaging in of the thin section nut.

##### Defect (6)

Wheel stud internal locknuts were found to be loose on rear wheels.

- (b) Defects (4) and (6) were both due to transcription error by contractor when preparing maintenance manual. Torque quoted for wheel studs was incorrectly high causing above defects. Manual data subsequently corrected.
- (c) Contractor responsibility.

5. (a) Defect (5)

Main clutch actuating system design defective. Automatic adjustment system impractical resulting in unnecessary movement which caused sudden acceleration of the vehicle when put into pumping mode. This dangerous situation overcome by removal of automatic adjuster and altering actuating cam shape to allow clearance for clutch plate wear.

- (b) This problem is now considered to have been a consequence of Defect No. 14. There were however some instances of incomplete clutch disengagement due to incorrect setting of the automatic adjusting system. The initial manuals did not adequately describe the setting up and functioning of the automatic clutch slack adjustment system. The contractor subsequently provided adequate manual information and the system now operates satisfactorily. The cam shape change was suggested by Queensland but not accepted by the contractor.

(c) Contractor responsibility.

6. (a) Defect (8)

Initial light steering modified by a restrictor in the power steering device.

- (b) This was not really a defect. The steering initially felt "light" to drivers not used to the vehicle. A very minor modification was undertaken by the Department to make pull on steering wheel slightly heavier.

(c) Departmental responsibility.

7. (a) Defect (9)

Monitor lock hydraulic valve leakages due to faulty 'O' rings and/or fittings.

- (b) Minor leaks in hydraulic equipment frequently occur during initial service. The leakage referred to occurred in standard equipment purchased by the contractor from Feecon Corporation which is widely used throughout the world and was corrected as part of normal minor in-service maintenance.

(c) Feecon Corp. (sub-contractor) responsibility.

8. (a) Defect (10)

Foam monitor 'O' rings failed under water pressure due to adjustment and fitting. Ring grooves re-machined to suit 'o' rings locally available.

- (b) Isolated fault with standard Feecon equipment which is used world-wide. Groove modification to suit locally available 'O' ring was not absolutely necessary but was within local authority.

(c) Feecon Corp. (sub-contractor) responsibility.

9. (a) Defect (11)

Automatic transmission oil cooler hoses relocated since on two occasions the appliance was immobilised by loss of oil by hoses cut through by rubbing on the brake disc.

- (b) Rubbing occurred on several vehicles, additional hose clips were fitted to ensure hoses were restrained clear of moving parts.

(c) Joint Departmental/Contractor responsibility.

10. (a) Defect (12)

Engine water jacket heater required modification to meet Australian Electrical Standards.

- (b) Important but simple changes to comply with Australian electrical safety standards.

(c) Joint Departmental/Contractor responsibility.

11. (a) Defect (13)

Power take off clutch packs. Dowelling for the pressure cylinders redesigned and remade by DoT.

- (b) A minor improvement was necessary in the retention of the Twin-Disc Power Take-off clutch housings. This became apparent after extensive operation.

(c) Contractor responsibility.

12. (a) Defect (14)

Lug on main clutch oil pump drive failed due to fatigue. Engines removed and extensive modifications carried out.

Defect (20)

Another failure of a main oil pump drive lug at Mt. Isa caused removal of engine at Mt. Isa (second time). Lug jammed in main clutch pack causing failure of clutch housing. New brake discs and pads now being provided.



- (b) *These defects are of the same type, and occurred on several vehicles, after extensive service. (Final sentence at end of Defect (20) relates to Defect (19)). The component which failed was a standard Rockford clutch part widely used throughout the world. A modified (stronger) part was produced by Walter and has performed satisfactorily. Cause of failure has not been definitely established, currently considered to have been due to complex torsional vibrations which could not be anticipated.*
- (c) Contractor responsibility.
- 13. (a) Defect (15)
  - Defective design of rear bearing housing in power divider.
- (b) Simple improvement in retention of bearing race.
- (c) Contractor responsibility.
- 14. (a) Defect (16)
  - Incorrect machining of epigot journal into flywheel bearing.
- (b) A manufacturing fault resulted in oversize flywheel bore and poor bearing outer race fit, indicating deficient quality control in manufacturing and/or assembly area.
- (c) Contractor responsibility.
- 15. (a) Defect (17)
  - While on the highway main clutch slippage occurred, rendering unit inoperative. Due to failure of clutch adjustment lock. Incorrect design. Modified by DoF.
- (b) The clutch adjustment locking lug, a standard Rockford clutch part, worked loose and allowed loss of drive.
- (c) Responsibility not firmly established, could be maintenance error (clutch had been adjusted) or result of complex torsional vibrations referred to earlier regarding Defects (14) and (20). Shape of locking lug modified by Department to ensure positive locking.

- 16. (a) Defect (18)
  - Power divider ring gear which drives power take-offs came loose due to failure of dowels and screws. Dowels appear small for the impact load of the foam P10 engaging and screws not mechanically locked. This problem resulted in the second engine removal. Redesign captive dowels fitted and screws drilled and wired.
- (b) Ring gear bolts were not (originally) lock-wired and became loose. Comment regarding dowels not appropriate as dowels function is only for assembly purposes. Bolts now lock-wired.
- (c) Contractor responsibility.
- 17. (a) Defect (19)
  - Original brake pads failed at Mt. Isa and Brisbane. Redesign pads fitted at Mt. Isa and bedded according to instructions. Juddering of brakes then occurred resulting in removal of vehicle from service.
- (b) Brakes do wear quickly if used in repetitive hard stops. Neither Department nor Contractor anticipated severity of braking. Vehicle braking performance is excellent, with stopping much quicker than specification requirement. Wear could have been overcome by de-rating brakes to merely meet specified and legal requirements however best course considered to be to retain maximum performance and determine best available linings. Contractor contributed to cost and evaluation of linings. Juddering occurred in some vehicles due to metallurgical changes in disc material at high temperatures resulting from repeated hard braking.
- (c) Joint Departmental/Contractor responsibility.
- 18. (a) Defect (21)
  - Power take-off dished washers over-loaded due to excessive clearance of shaft.
- (b) Defect found on some vehicles where accumulated tolerances allowed retaining washers to be over-stressed during assembly of the power take-off units. This indicated a minor design problem and a manufacturing quality control deficiency. Design was subsequently changed to obviate problem.
- (c) Contractor responsibility.

19. (a) Defect (22)

Foam pump leaking AFFF. Packed glands unsatisfactory. Now being redesigned to use mechanical seals.

- (b) This should be described as an in-service improvement to a widely used standard foam pump. The original seals were of the packed gland type which must be allowed to drip in service. The pump manufacturer has successfully marketed the pump for fire vehicles world-wide and will not change his standard design. Departmental action to modify the pumps on a planned basis to mechanical type seals was envisaged when the vehicles were ordered.

- (c) Departmental responsibility.

20. (a) Defect (23)

Differentials of tender appeared to be showing extra wear considering mileage.

- (b) This is a statement of opinion by Queensland Region and not a defect. The differentials are of unique design providing all wheel drive slip limitation characteristics by virtue of worm action and some wear is inherent. The contractor has been consulted and future wear will be monitored.

- (c) Joint Departmental/Contractor responsibility.

21. (a) Defect (24)

Complete failure of power actuator to steering resulted in no steering ability.

- (b) An assembly defect on one vehicle only, not picked up during pre or in-service inspections until it failed.

- (c) Isolated manufacturing error by contractor.

22. (a) Defect (25)

Power divider. Major errors in machining alignment evident.

- (b) For a period DoT considered that Defects (14), (20) were due to machining errors in power divider housing. Now consider housing machining was satisfactory.

- (c) Departmental responsibility.

23. (a) Defect (26)

Water tank supports failed.

- (b) An isolated manufacturing fault resulted in a crack in weld of tank support frame and was repaired by Departmental staff.

- (c) Contractor responsibility.

24. (a) Defect (27)

Investigation of Queensland tenders for possible cracking of hubs required due to a failure in Canberra tender.

- (b) Some final drive gears cracked in service, all vehicles were checked and total of 4 vehicles found to be affected: caused by faults in manufacture and heat treatment of gears by large gear sub-contractor - this occurs infrequently in the industry, warranty replacement by Walter.

- (c) Contractor responsibility.

SOURCE: Department of Transport memo. of 30 May 1980

ADDITIONAL DEFECTS

Subsequently, the Department was asked if defects additional to those reported by the Auditor-General had been found. They commented and where appropriate, identified the area of responsibility:

- 1. (a) Front wheel drive shaft came out of spline on 1 vehicle (Canberra)

- (b) Front differential had been mounted off-centre on chassis causing shaft to be effectively too short. Drive unit relocated and no further problem. All units checked, some found to be off-centre and corrected where necessary

- (c) contractor responsibility.

- 2. (a) Interference between body and tank in top hatch area - approx. 30% of fleet affected

- (b) Manufacturing variations by tank sub-contractor resulted in insufficient clearance between body and tank hence rubbing contact on some vehicles - not a critical problem, local corrective action taken

- (c) Manufacturers responsibility.

3. (a) Minor cracking of body side panel where 2-1/2 inch side delivery couplings mounted - approx 20% of fleet affected
- (b) Couplings movement under pump delivery pressure causes flexing and eventual cracking. Non-critical, minor modifications carried out to restrict movement.
4. (a) Cracking/breakage of coupling in supply line to monitor
- (b) Combination of marginal design and manufacturing errors by Feecon led to fault on 3 vehicles - replaced with stronger parts with no further problem
- (c) Feecon Corp (sub-contractor) responsibility.
5. (a) Deterioration of monitor bearings.
- (b) Water and foam agent caused corrosion of monitor bearings on several vehicles. Caused by seal design. Improved seal and bearing design developed and being progressively fitted to all vehicles when convenient.
- (c) Feecon Corp (sub-contractor) responsibility.

SOURCE: Department of Transport memo. of 22 August 1980

#### APPENDIX 15

##### TRAINING - AIRPORT RESCUE AND FIRE FIGHTING SERVICE

At the hearing of 18 March 1980, reference was made to the level of training carried out by the Department of Transport and the fact that it operates a full-time fire service. At the Committee's request, the Department provided the following information:

- The Airport Rescue and Fire Fighting Service was re-organised in 1955 on a national basis for Australia and its Territories. It has operated as a full-time fire service since then;
- Since 1957 when the Fire Service Training School was established the high levels of training referred to in the hearing have been carried out. Periodic reviews of training and training methods have taken place since that date;
- Training methods and the level of training was discussed with the successful tenderer. Mr W. Wenzel, the Vice President of Sales and Marketing of the Walter Company was shown our equipment in service at Melbourne Airport and also visited the Fire Service Training School. He was very interested in our training methods and activities; and
- It is reasonable to expect that manufacturers of specialist equipment are aware of levels and training methods. This Department has over the years had visits from world known manufacturers who have sought the operational viewpoint not only on equipment design but also on the methods of attaining the best operational performance from the equipment. In addition the manufacturers have sought our views on cab layouts of controls and functions and how we view training needs to achieve the tactical role of the equipment. Manufacturers are also aware that the Service has trained many overseas Airport Rescue and Fire Fighting staff in Australia and that our Service has supplied training officers to overseas countries.

SOURCE: Department of Transport memo. of 22 August 1980

## DELAYS AND COSTS, WALTER 6,800 L

Vehicle Reg. No.	Location as at end of Feb '80	Date of arrival for training purposes at destination station	Date of commission- ing into fire line duty	Days out of service during period from arrival at destination to commis- sioning	Total Labour Costs up to commis- sioning date	Total material costs up to commis- sioning date
ZAD 887	Launceston	1/8/78 (Melb)	12.1.79	2	\$ 5147	\$ 297
ZAD 888	Hobart	6/12/78 (Liton)	29.12.78	1	2938	1254
ZAD 892	Sydney	1/8/78 (Melb)	21.11.78	35	3542	8
ZAD 895	Adelaide	4/9/78	17.11.78	30	3461	202
ZAD 896	Darwin	25/8/78	5.12.78	46	1800	225
ZAD 897	Brisbane	18/9/78	5.10.78	28	1593	106
ZAD 898	Melbourne	23/8/78	22.11.78	6	4299	188
ZAD 902	Canberra	13/10/78	29.6.79	109	14871	477
ZAD 911	Coolangatta	7/7/78	30.11.78	48	4325	119
ZAD 909	Mt Isa	23/11/78	14.12.78	5	3940	116
ZAD 900	Alice Springs	24/9/79	16.10.79	Nil	2680	21
ZAD 901	Avalon	14/11/79	11.4.80	54	1363	105
ZAD 908	Brisbane	11/10/79	13.10.79	Nil	1401	133
ZAD 912	Brisbane	19/10/79	12.11.79	Nil	2022	213
ZAD 913	Coolangatta	10/10/79	18.10.79	Nil	3401	34
ZAD 914	Adelaide	21/11/79	30.11.79	Nil	55883	3498
				364		

## APPENDIX 16

## DELAYS AND COSTS, WALTER 6,800 L

Vehicle Reg. No.	Location as at end of Feb '80	Days out of service since commis- sioning at 4.4.80	Days out of service 5.4.80 to 30.6.80	Total Labour Costs up to 30.1.80	Total Material Costs to 30.1.80
				\$	\$
ZAD 887	Launceston	56	-1/2	19757	2208
ZAD 888	Hobart	166	0	21920	2192
ZAD 892	Sydney	123	1-1/2	28822	4127
ZAD 894	Adelaide	92	1	15462	1796
ZAD 895	Darwin	90-1/2	2	14408	1362
ZAD 896	Brisbane	63	22*	16393	3419
ZAD 897	Melbourne	172	1	20328	5017
ZAD 898	Canberra	82-1/2	-1/4	22201	4234
ZAD 902	Coolangatta	172	87*	19351	2048
ZAD 911	Mt Isa	105-1/2	6-1/4	16872	1477
ZDG 009	Alice Springs	43-1/2	55*	4790	725
ZDG 010	Avalon		28-1/2**	1727	314
ZDG 011	Brisbane	15-1/2	1	2651	161
ZDG 012	Brisbane	22	3	2461	223
ZDG 013	Coolangatta	20	2	4548	349
ZDG 014	Adelaide	79-1/2	28	4898	601
		1303	239	216589	30253

Note: Cost quoted in Auditor-General's Report 1978-79 included cost of materials replaced under warranty. Adjustment has been made for warranty materials in above tabulation.

Please note:

- (i) no records are maintained which would provide the number of days the vehicles were under repair before commencement of training period,
- (ii) maintenance cost information is available only up to 30 January 1980,
- (iii) departmental records do not differentiate between repair and modification labour costs; detailed engineering assessment of individual station records would indicate that between 40 and 60 of the total labour expenditure on each vehicle has been on modification work.

\* planned withdrawal from service for modifications.

\*\* withdrawal on several occasions for modifications and repairs.

SOURCE: Department of Transport memo. of 30 May 1980 and memo. of 22 August 1980

APPENDIX 17

WITNESSES APPEARING BEFORE THE COMMITTEE

Witnesses heard were:

Day 1, 18 March 1980

Mr George Andrew BIRCH, First Assistant Secretary, Finance and Commercial Division, Department of Transport, Canberra, Australian Capital Territory;  
Mr James Herbert HARPER, First Assistant Secretary, Ground Facilities Division, Department of Transport, Melbourne, Victoria;  
Mr James Edward SCHOFIELD, First Assistant Secretary, Airways Operations Division, Department of Transport, Melbourne, Victoria;  
Mr Wesley Gordon WILLOUGHBY, Senior Assistant Secretary, Works and Services Branch, Department of Transport, Melbourne, Victoria;  
Mr James Owen DAVIS, Chief Engineer, Mechanical Engineering Section, Department of Transport, Melbourne, Victoria;  
Mr Henry Fairfax GASCOIGNE, Director, Fire Services, Department of Transport, Melbourne, Victoria, and  
Ms Lidia Mary REBESCHINI, Contracts Officer, Department of Transport, Melbourne, Victoria.

Day 2, 19 March 1980

Mr Jerome Robert McDUGAL, President, Walter Motor Truck Company, School Road, Voorheesville, New York, United States of America;  
Mr James Owen DAVIS, Chief Engineer, Mechanical Engineering Section, Department of Transport, Melbourne, Victoria.

Day 3, 2 April 1981 (In Camera)

Day 4, 28 April 1981

Mr Keith Henry TOAKLEY, Acting First Assistant Secretary, Finance and Commercial Division, Department of Transport, Canberra, Australian Capital Territory  
Mr Thomas Frederick HOPKINSON, Assistant Secretary, Commercial Branch, Finance and Commercial Division, Department of Transport, Canberra, Australian Capital Territory;  
Mr Gordon Keith VERNEY, Director, Supply and Transport Section, Commercial Branch, Finance and Commercial Division, Department of Transport, Canberra, Australian Capital Territory;

Mr Hugo Brian O'KEEFE, First Assistant Secretary, Airways Operations Division, Department of Transport, Canberra, Australian Capital Territory;  
Mr George Keith Ross REID, First Assistant Secretary, Ground Facilities Division, Department of Transport, Canberra, Australian Capital Territory;  
Mr Robert Raymond SEXTON, Principal Engineer, Fire Engineering Section, Department of Transport, Melbourne, Victoria;  
Mr Henry Fairfax GASCOIGNE, Director, Fire Services, Department of Transport, Melbourne, Victoria;  
Mr James Owen DAVIS, Chief Engineer, Mechanical Engineering Section, Department of Transport, Melbourne, Victoria.